UNITED NATIONS

ECLAC

Distr.
LIMITED

LC/L.3037
15 May 2009

ENGLISH
ORIGINAL: SPANISH

Forum European Union, Latin America and the Caribbean
Fiscal policies in times of crisis: volatility, social cohesion and the political economics of reform

Montevideo, 19-20 May 2009

THE ROLE OF TAX POLICY IN THE CONTEXT OF THE GLOBAL CRISIS: CONSEQUENCES AND PROSPECTS

This document was prepared with support from the European Unit project "Macroeconomics and Equity". Opinions expressed herein do not necessarily reflect those of the European Union.

2009-272

This document was prepared by Juan Pablo Jiménez, Economic Affairs Officer of the Economic Development Division of ECLAC and Juan Carlos Gómez Sabaini, consultant to ECLAC.

CONTENTS

I. INTRODUCTION

The financial crisis has had a significant impact in Latin America and the Caribbean, moving through all of the various channels that connect Latin America with the rest of the world: trade, capital flows, remittances and foreign direct investment. This has resulted in a series of simultaneous negative effects on the region's economies: declining exports (in terms of both volume and price), severe limitations on access to capital markets, a decrease in remittances and a reduction in the flow of foreign direct investment.

These factors affect public finances, while at the same time limiting governments' ability to respond. Tax revenues are declining significantly as a result of the economic slowdown/recession and the drop in commodity prices. Moreover, the fiscal stimulus packages implemented by the countries will cause a further decline in their fiscal balances. To compensate for the distributive costs of the crisis, the countries have adopted contingency measures. Finally, in tandem with shrinking fiscal balances, the flow of external financing has slowed significantly. This worsening in fiscal performance comes on the heels of several years of improved performance in the region's public accounts, which had allowed for a lowering of the debt-to-GDP ratio.

The seriousness of the worsening fiscal situation, along with the possibility that it could lead to solvency problems, is closely linked to the pre-crisis fiscal position, and will be affected by how long the crisis lasts. The crisis and its impacts vary from country to country, demanding different responses, due both to differences in the causes and effects, and to countries' differing capacities and resources.

This document focuses in particular on the impact of the crisis on tax revenues, and on the countries' policy responses to the crisis. It also examines potential lines of action that countries could undertake.

The present report approaches this situation by analysing tax issues and examining how they interact with the current economic situation. It begins by presenting an assessment of the principal stylised features of the changing fiscal and tax policy of the last several years. It then looks at the possible impact of the crisis on this situation, and the level of risk to which each country is exposed. Following this, it examines the main fiscal and tax measures adopted, as well as issues of political economy that could hinder the implementation of reforms to address the crisis. Finally, it presents some thoughts on which paths would be most advantageous over the coming years.

II. WHAT HAS OCCURRED IN LATIN AMERICAN AND THE CARIBBEAN OVER THE LAST DECADE WITH REGARD TO FISCAL AND TAX POLICY?

The past decade has been marked by various fiscal-policy reforms. On the revenue side, the decade continued previous years' pattern of declining revenue from foreign trade, with import substitution leading to the rapid expansion and strengthening of value added taxes across the region.[1]

The downsizing of the public sector's role as a provider of various public goods and services was consolidated. This included attracting private capital to the development of public services infrastructure.[2]

1 For more detail, see Cetrángolo and Gómez Sabaini (2007).

During the 1990s, many of the region's countries reassigned powers and authorities among the different levels of government, a process commonly known as "decentralisation", although the actual measures deviated from the concept.[3] As a result of this process, subnational governments now play a more important role in public administration, with greater participation in execution of the public budget.

Also during this period, a number of the region's countries reformed their pension systems, introducing components of individual capitalisation,[4] a trail that Chile blazed for the region in 1981. As will be seen in more detail below, these reforms have had a major impact on the public finances of the region's countries.

As regards the performance of public accounts, two periods of change in the last decade can be clearly distinguished, the first running from 1998 to 2001, the second from 2002 to 2008.

During the earlier of these two periods, fiscal policy unfolded against a challenging macroeconomic backdrop, both domestically and internationally. In some cases, aggravating factors, such as the weakening of the United States and a decline in the terms of trade among petroleum-dependent economies, also played a role.

In the more highly indebted countries, the volatility of capital markets, deteriorating international financial conditions, and the constraints this imposed on the ability of public sectors to access financing had a major impact.

Given this situation, the region's economies had less freedom in their fiscal policies. One manifestation of this was that most of the governments in those years were executing or negotiating programmes with the IMF involving restrictive economic policies —policies that, in some cases, unwittingly intensified the effects of the economic cycle.

Moreover, the unfavourable macroeconomic circumstances affected, directly or indirectly, the tax revenues of nearly all countries in the region.

While more expansive fiscal policy tools may have been called for during the recession years, few countries adopted a fiscal management approach during those years that would have provided greater political space to establish effective fiscal policies.

Furthermore, the various structural reforms carried out during the 1990s did not bring greater solvency to governments or solve the problems associated with high levels of debt. On the contrary, many of these policies postponed necessary reforms by creating temporary solvency, paving the way for major capital inflows (some involving privatisations), thus aggravating fiscal imbalances (lack of equitable reforms to social programmes in some countries), reducing government resources (through economic liberalisation and reduced tariffs) and intensifying pressures that led to increased spending (decentralisation).

This period was one of major deterioration in the fiscal accounts of the region's countries, which, on average, did not show a primary surplus, making it clear that, even apart from the debt problem, governments were experiencing serious financial problems. In 1998, while the simple average primary

---

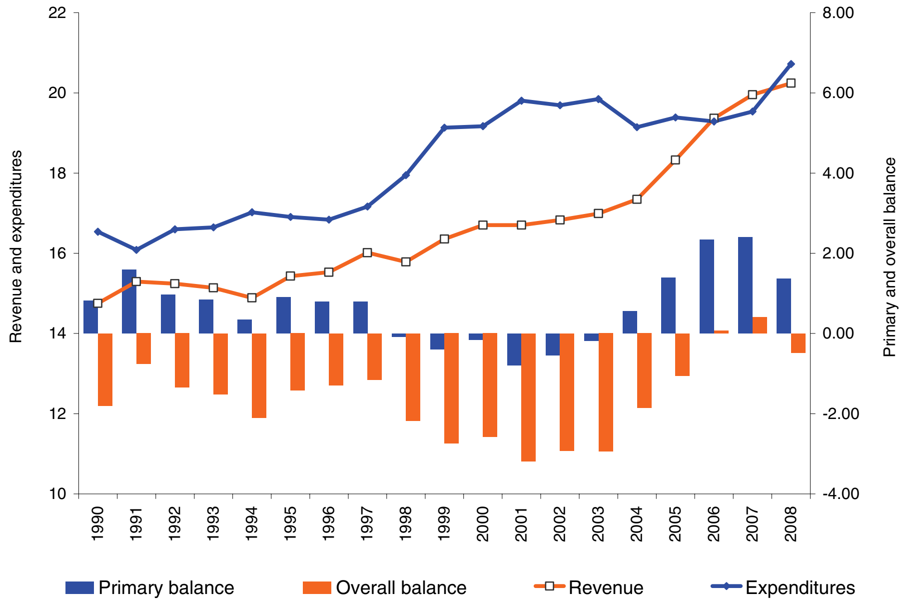
2 For more detail, see Lucioni (2009).

3 For an overview of fiscal decentralisation processes in the region, see ECLAC (2003).

4 According to ECLAC (2006), the reforms introduced may be classified in three broad categories: substitutive, those that include parallel regimes, and those based on instituting mixed models.

balance for the central governments in the region was close to equilibrium, 2001 marked the highest primary deficit (0.7% of GDP) of the last ten years. If one takes into account the overall deficit (including interest on the public debt), the average deficit rose from 1.2% of GDP in 1997 to 3.3% in 2001 (see figure 1).

Figure 1
LATIN AMERICA AND THE CARIBBEAN: REVENUE, EXPENDITURES, AND PRIMARY AND OVERALL BALANCE OF CENTRAL GOVERNMENTS, 1990-2008
(Simple averages, as percentages of GDP)



Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC).

Thus, the fragile condition of the region's public sector left little room for using fiscal policy to foster macroeconomic stability. While uncertainty regarding resources forced governments to pare spending as much as possible, efforts to limit the deficit were hindered by negative effects from external factors. The attempt to achieve greater fiscal solvency conflicted with recommendations for a countercyclical fiscal policy. This, along with the difficulty of financing higher temporary fiscal deficits in the domestic and international credit markets during a crisis, skewed fiscal policy toward a distinctly procyclical bias.

At the same time, the emphasis during this period on rebuilding the credibility of macroeconomic authorities and on establishing budget deficit goals that would remain constant throughout the economic cycle partially weakened the effect of the automatic stabilisers, thus further increasing the procyclical nature of fiscal policy.

Capital expenditures proved to be the variable in budgetary spending adjustments, reaching, in 2000, their lowest level for the period. Capital investment and transfers, given their more flexible nature, were the areas of adjustment most frequently relied upon to meet fiscal goals. In much of the region, the norm was to cut infrastructure investment, as well as capital transfers to key productive sectors, while postponing public enterprise projects.

Finally, the slowdown in economic activity in 2001 directly affected the changing debt ratios of the region's countries. The macroeconomic reality and the budget deficits, added to currency depreciation in many of the countries, led, in many cases, to an increase in public debt. Thus, the end of this period saw a large increase in debt, adding even greater inflexibility to fiscal policy. The region's public debt as a percentage of GDP in the non-financial public sector rose from 43% in 1997 to a peak of 65% in 2002.

This situation illustrates a special characteristic of public finances in Latin America and the Caribbean: when capital flows fall drastically, the public sector's financing needs rise, both because of the slowdown in economic activity and because the cost of the external public debt, in national currency, increases.

In contrast, the 2002-2008 period saw a sharp improvement in the budgetary balance for the region's countries. Of the 19 countries commonly cited, only four still had a primary central government deficit as of 2008, a significant contrast with 2002, when 11 countries had such deficits.

The vulnerability of the region's countries to external factors decreased during this period, due to the improved public accounts balance and the decline in public debt as a percentage of GDP.

On the basis of changes in fiscal variables, this period can be subdivided into two parts, the first running from 2002 to 2004, the second from 2005 to 2008. While the fiscal improvement of 2002-2004 was based on greater tax revenue and the fact that spending, on average, grew less than GDP in the region,[5] the growth of the primary surpluses between 2004 and 2008 was due to a sharp increase in revenue that more than compensated for the increased public spending.

The marked increase in fiscal revenues of recent years has brought public resources, on average, to unprecedented levels in the region. While tax collections averaged 15.6% of GDP during 1990-1995, they rose to 17.4% in 2001-2005, and to 20% for the last three years of the period.

A number of factors converged in the latter years to produce the high levels of tax revenue. The significant increase in economic activity had a strong impact on tax collections. Indeed, the higher level of activity produced a rise in tax revenue not only because of the changing composition of GDP, but also because of improved tax enforcement.[6] At the same time, increasing prices for some countries' primary products have contributed to higher tax revenues.[7] [8]

---

5 This situation is largely a result of the change in relative prices caused by the devaluation of some of the region's currencies (Argentina, Brazil, Uruguay) at the end of the last decade and the beginning of the current one. While public spending is, for the most part, denominated in local currency, the income generated from the tradables sectors of the economy changes in tandem with the dollar. To see this effect at work in the end of convertibility in Argentina, see Cetrángolo and Jiménez (2003), and for more detail regarding the effect of exchange rate shocks on fiscal sustainability, see Levy-Yeyati and Sturzenegger (2007).

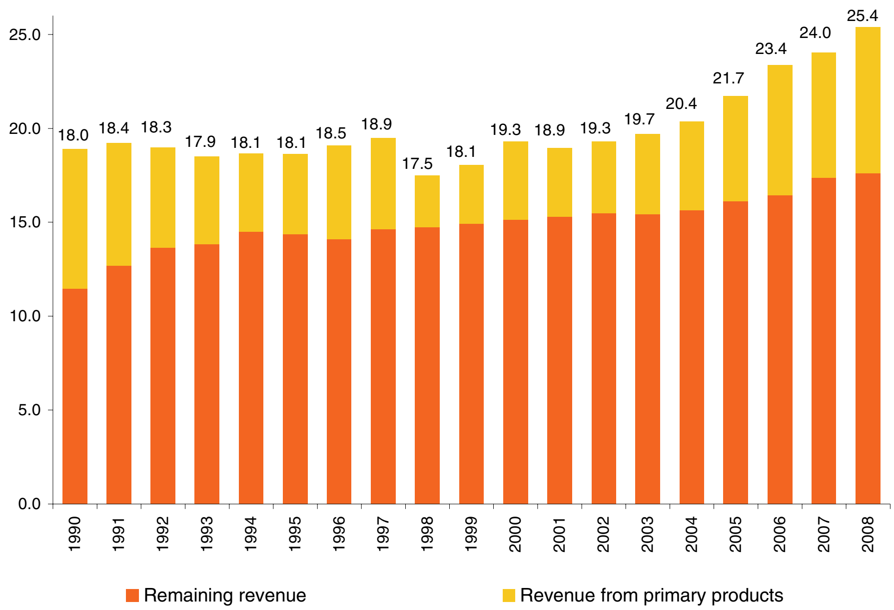
6 In general, the elasticity of tax collections is greater than one. In the expansion phases of the cycle, they increase more than proportionally, due to the fact that growth produces an increase of the formal economy and generates more than proportional growth in imports and the associated taxes. In recessive phases, on the other hand, collections fall more than proportionally due to the fact that the same mechanisms operate in reverse, as well as from increased tax evasion.

7 An additional explanation of this increase is the large rise in tax rates over of the last few years. As regards the value added tax (the main source of tax revenues in the region), its average rate as of May 2007 was 14.7%, whereas it was 11.7% in 1994.

8 In addition, it should be noted that a number of the region's countries have fully implemented taxes that are normally considered emergency measures, including the financial transactions tax currently in place in Argentina, the Plurinational State of Bolivia, Brazil, Colombia and Peru.

This increase in prices of the region's commodities exerted a significant upward pressure on tax revenues. The governments of the region have developed different ways of taking fiscal advantage of these resources. In the case of agricultural products, Argentina has financed a substantial portion of its spending with funds generated by export duties. The governments of countries with major non-renewable resources have various mechanisms for using this circumstance to fiscal advantage, and the Plurinational State of Bolivia, Chile and the Bolivarian Republic of Venezuela created new taxes to increase revenue from their non-renewable resources.[9] Taken together, income from these sources led to average growth in total fiscal revenue in the Plurinational State of Bolivia, Chile, Colombia and Mexico of 27.9%, 7.7%, 8.3% and 29.4%, respectively, during the 1990s, and of 34.3%, 17.8%, 13.6% and 37.1% in 2006-2008, thus exerting a major effect on total revenues (see figure 2).

Figure 2
LATIN AMERICA (8 COUNTRIES)[a]: FISCAL REVENUES OF COUNTRIES SPECIALISING IN PRIMARY PRODUCTS
(Percentages of GDP)



Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC).

[a] Includes Argentina, the Bolivarian Republic of Venezuela, Chile, Colombia, Ecuador, Mexico, Peru and the Plurinational State of Bolivia.

Two aspects of tax policy are noteworthy. The first is the increase in the tax burden between 1990 and 2007. From an average level of 14.1% of GDP in 1990-92, it rose (if one includes social security) to 18.6% in 2005-2007 (see figure 3). In absolute terms, it rose by 4.5% of GDP, or 33%.

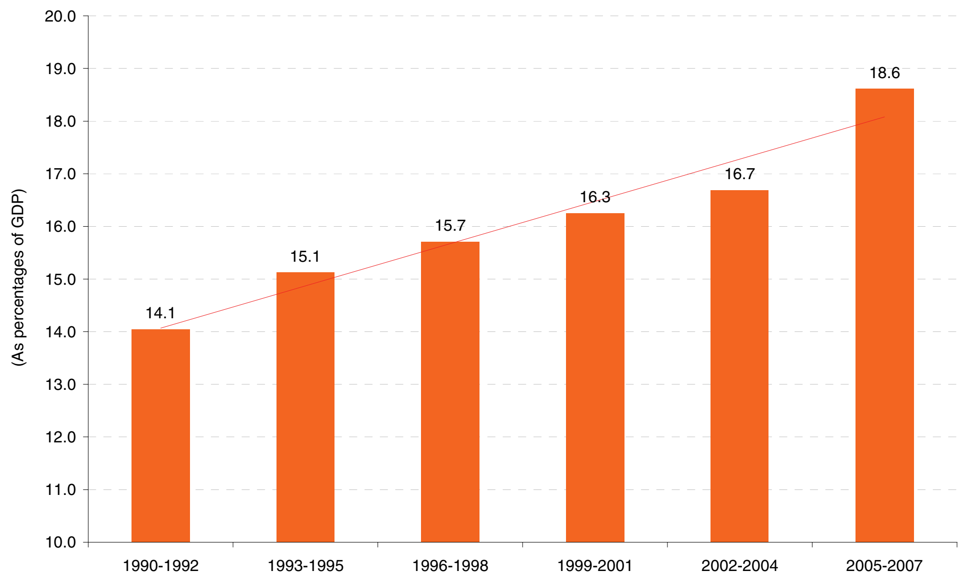
Despite the positive trend, it should be noted that the revenue of the region's countries is low, both in relation to their needs and with respect to their level of development. The following chart shows the revenue levels of each country for 2007 as a percentage of GDP.

[9] For more detail, see Jiménez and Tromben (2006).

Figure 3

LATIN AMERICA AND THECARIBBEAN: CHANGING TAX BURDEN IN LATIN AMERICA

(Averages by period, as percentage of GDP)

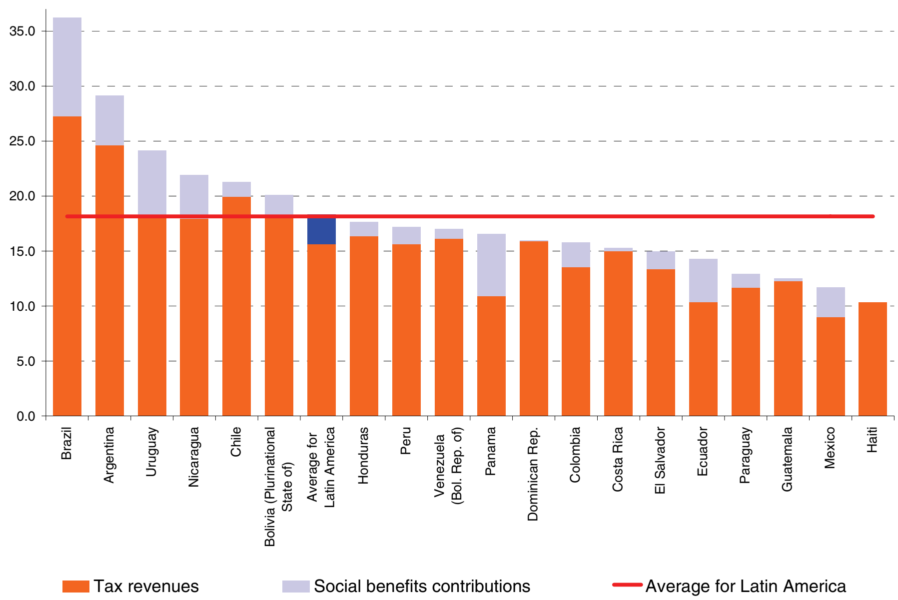


Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC).

Figure 4

LATIN AMERICA (19 COUNTRIES): TAX BURDEN BY COUNTRY

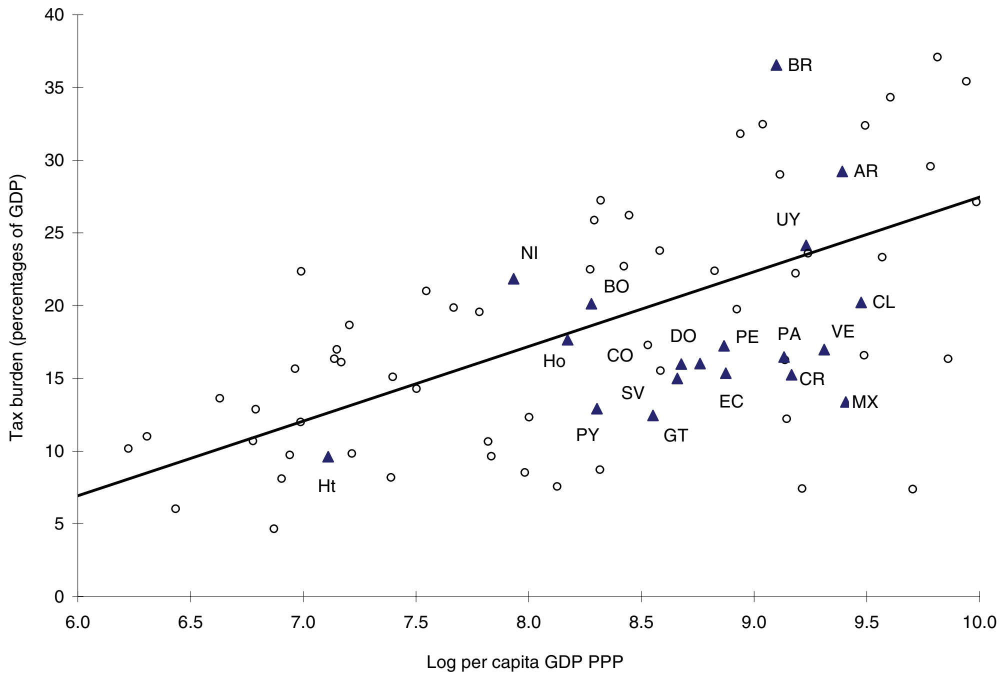
(Percentages of GDP)



Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC).

In terms of the relation between tax burden and level of development, Figure 5 shows that only five Latin American countries have tax burdens that are high or appropriate for their level of development, while the tax burden in the remaining 14 countries is below what these countries should have, based on their per capita GDP.

Figure 5
LATIN AMERICA AND THE CARIBBEAN: WORLDWIDE COMPARISON OF TAX BURDEN VS. PER CAPITA GDP IN PPP
(Percentages of GDP and logarithms)

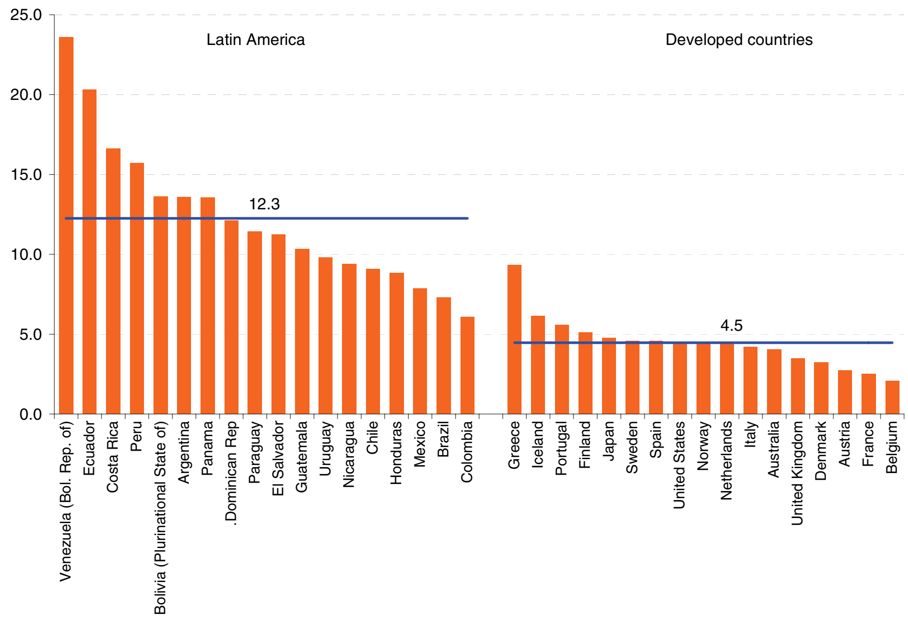


Source: J.P. Jiménez and A. Podestá, "Tributación y equidad: desafíos para América Latina", Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), 2008, unpublished.

Another important factor to bear in mind is the high volatility of tax revenues in Latin America. The average volatility in the region, as measured by its standard deviation, is nearly three times greater than in the developed countries. This has important consequences in terms of the ability of the public sector to play a stabilising role. In addition, excessive tax revenue volatility has a major impact on the most vulnerable segments of the population, since it leads to fluctuations in social spending by the government.

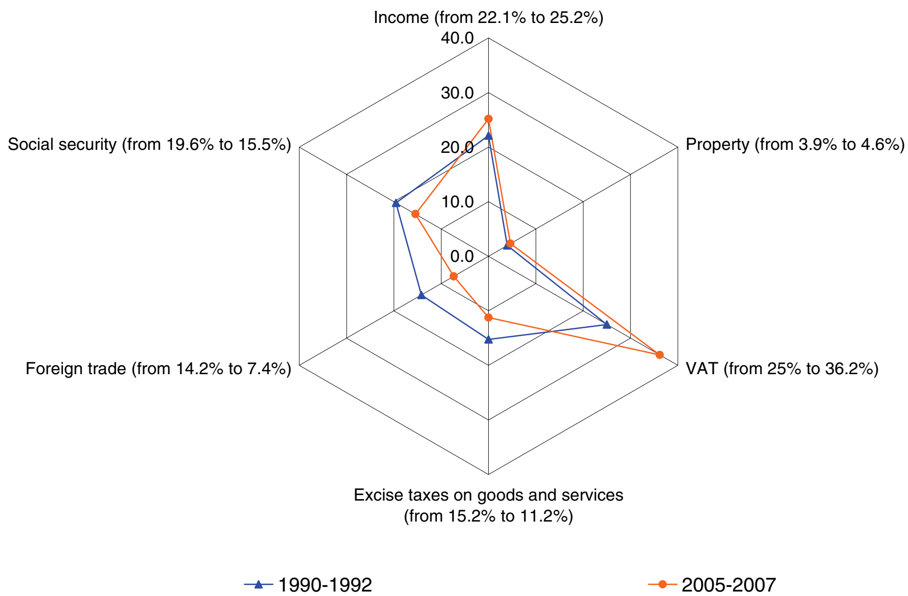
Structurally, another important factor has been the growth in the value added tax (VAT), both in absolute terms and proportionally. While the VAT represented an average of 3.3% of GDP and 25% of tax revenues at the beginning of the 1990-1992 period, the figures for 2005-2007 were 6.6% of GDP and 36.2% of tax revenues (see figure 7).

Figure 6
LATIN AMERICA AND DEVELOPED COUNTRIES: VOLATILITY OF TAX REVENUES
(Standard deviation)



Source: R. López Monti, "Real volatility and cyclical fiscal policy in Latin America and developed countries", Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), 2009, unpublished.

Figure 7
LATIN AMERICA AND THE CARIBBEAN: COMPARISON OF TAX STRUCTURES 1990-1992 AND 2005-2007



Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC).

The rising VAT in all of the countries has clearly been one of the most significant phenomena in tax policy in the last 15 years, accounting, by itself, for nearly 70% of the rising tax revenues, with income tax responsible for 33.5% and wealth taxes a mere 6.5%, while taxes on foreign trade pushed in the opposite direction, accounting for -11.2% of the total change (see table 1).

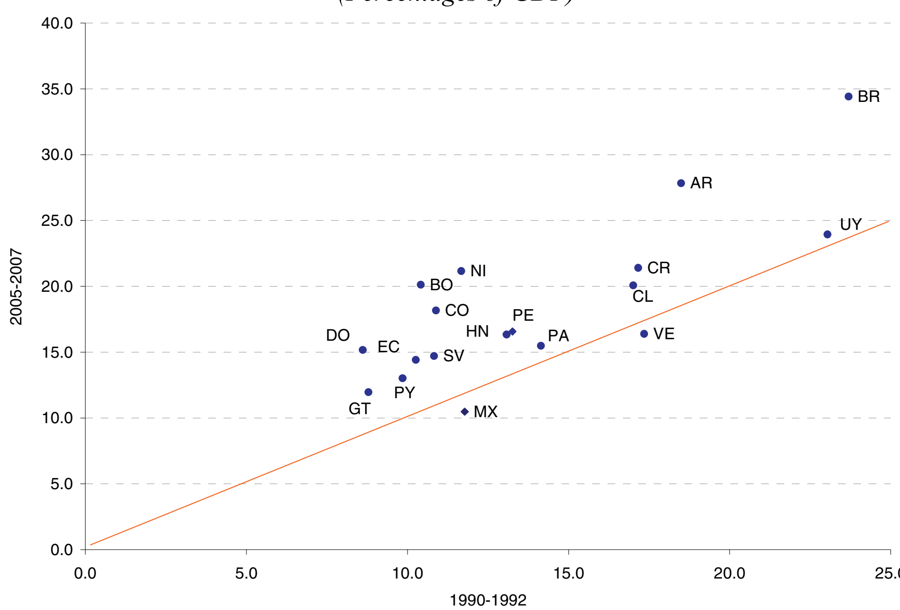
Table 1
LATIN AMERICA AND THE CARIBBEAN: APPROXIMATE PROPORTIONAL WEIGHT OF FACTORS ACCOUNTING FOR CHANGE IN OVERALL TAX BURDEN, 1990-1992 AND 2005-2007
(Percentages of GDP)

Category	1990-1992	2005-2007	Absolute change	Percentage change
Income	3.0	4.6	1.6	33.5
Property	0.5	0.8	0.3	6.5
VAT (general, on goods and services)	3.3	6.6	3.3	66.7
Excise tax on goods and services	2.0	2.0	0.0	0.3
Foreign trade	1.9	1.3	-0.5	-11.2
Social security	2.6	2.8	0.2	4.3
Total tax revenues (w/o social security)	13.3	18.2	4.9	100.0

Source: CEPALSTAT.

These tax averages for the region certainly have their extremes: at one end, with the highest levels, the countries that led the rise in the regional tax burden, such as Brazil and Argentina; at the other extreme, countries like Mexico and Guatemala, where there has been the least amount of change in tax burdens (see figure 8).

Figure 8
LATIN AMERICA AND THE CARIBBEAN: DISPERSION OF TAX BURDEN, BY COUNTRY 1990-1992 AND 2005-2007
(Percentages of GDP)



Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC).

An overview of the regional situation, which has been analyzed in various studies on the issue, reveals some facts that are pertinent to the current situation. These (not listed in order of importance) are as follows:[10]

- The personal income tax, which is focused on wages and salaries, may require compensatory measures to avoid both erosion of family incomes and increased tax inequity vis-à-vis exempt sources of income such as capital gains.
- Not only has the increase in income tax been concentrated principally on corporate profits, but there are also some features that contribute to lower tax revenues, such as the absence of transfer fees, the use of imperfect standards on the future treatment of business losses, and the lack of controls on movements relating to tax havens, as well as treatment of corporate financing that is more favourable to third party funds than to reinvestment of profits within a business. In crisis situations, these elements erode the tax base and have a negative effect on countries' income tax collections.
- The favourable change in the tax burden has been sustained, given the increases in both private and public consumption, since the latter is also subject to value added tax for goods and services acquired.
- The process of concentrating taxation on a few, essentially selective, taxes, has pros and cons in terms of rapidly capturing new resources, since a strong dependency on the VAT makes revenue extraordinarily dependent on consumption, the area most sensitive to crisis situations.
- This feature is intensified by the high proportion of VAT revenues that derive from importation of goods, since these imports change in crisis situations even more markedly than final consumption, especially in the present circumstances, in which the erosion of international trade has been so rapid.
- Selective taxes on consumption have focused, in the last few years, on alcohol and tobacco and on other consumer goods, as well as on fuels and crude oil as intermediate goods. In the former case, the reduction in private sector income affects revenue, while in the latter, revenues are hurt by the lower level of economic activity. In neither case are the taxes countercyclical.
- The area in which the crisis has an immediate effect on revenue is that of imports. The effects on the VAT have already been noted, but no less important, or even more important for small countries, are the effects of declining import duties in many countries, where customs revenues are falling steadily from one day to the next.
- Although there are no clear and precise indicators showing that tax administration improved substantially in the region's countries during the high-growth period, there is a general sense that it is better than it was. If true, the region is better equipped than in previous crises to deal with increasing tax delinquency (whether due to evasion or late payment), a phenomenon that can be expected to occur.
- Measuring greater administrative efficiency by increases in collections can lead to serious errors, since it is strongly affected by changes in exogenous variables. Unfortunately, few studies have attempted to quantify progress in administrative efficiency, and those that exist are inconclusive.

---

[10] Álvarez (2008), Arias (2008), Cabrera (2008), Cetrángolo and Gómez Sabaini (2008), Jorrat (2008) and Roca (2008).

- One favourable indicator would seem to be the increased productivity of the VAT and reductions in the level of VAT evasion in countries where that tax is levied. The former factor, however, is due principally to increasing the tax base by eliminating exemptions for goods that were previously exempt, and by incorporating formerly exempt services in the tax base.
- Meanwhile, although absolute levels of VAT evasion remain high, the decline in the rates may be considered a favourable factor in the context of improving tax administration. However, the asymmetry between VAT evasion and the high levels of failure to pay income tax shows that considerable overall improvement in the region's tax systems is still needed.

In short, a brief analysis of past changes indicates that there has indeed been progress in the area of taxation in Latin America and the Caribbean, in term of both public revenues and changes in tax structures. These advances, however, are focused on the VAT and the concentration of taxes, which have put more emphasis on solvency and economic efficiency than on distributive issues and compensatory policies.

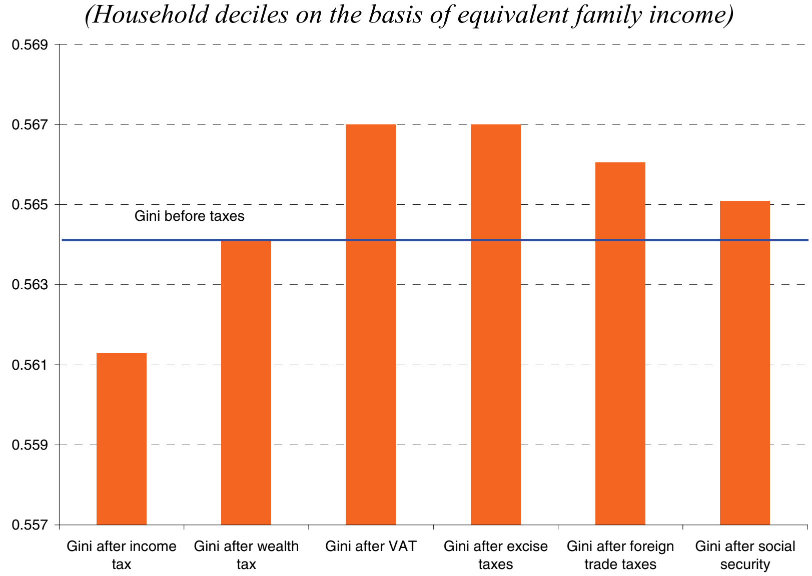
The current tax structure within the region has serious problems in terms of its capacity to improve income distribution. Moreover, the reforms of the last two decades demonstrate that improving the distributive effect has not been a policy priority, and that any actual improvements in income distribution (e.g., as a consequence of replacing inflationary financing by taxation in the public sector) have occurred only as an indirect result, rather than as an explicit aspect, of the reform policies (Cetrángolo and Gómez Sabaini, 2007).

Following this line of analysis, it is instructive to refer to a simulation study on the tax reforms needed to improve income distribution (Gómez Sabaini, 2006). As figure 9 shows, all of the tax categories in the Latin American tax systems, except for income tax, are regressive, with after-tax Gini coefficients (Gpost) higher than pre-tax coefficients (Gpre).

Figure 9

LATIN AMERICA: REGIONAL AVERAGE INCOME CONCENTRATION INDICES

(Household deciles on the basis of equivalent family income)



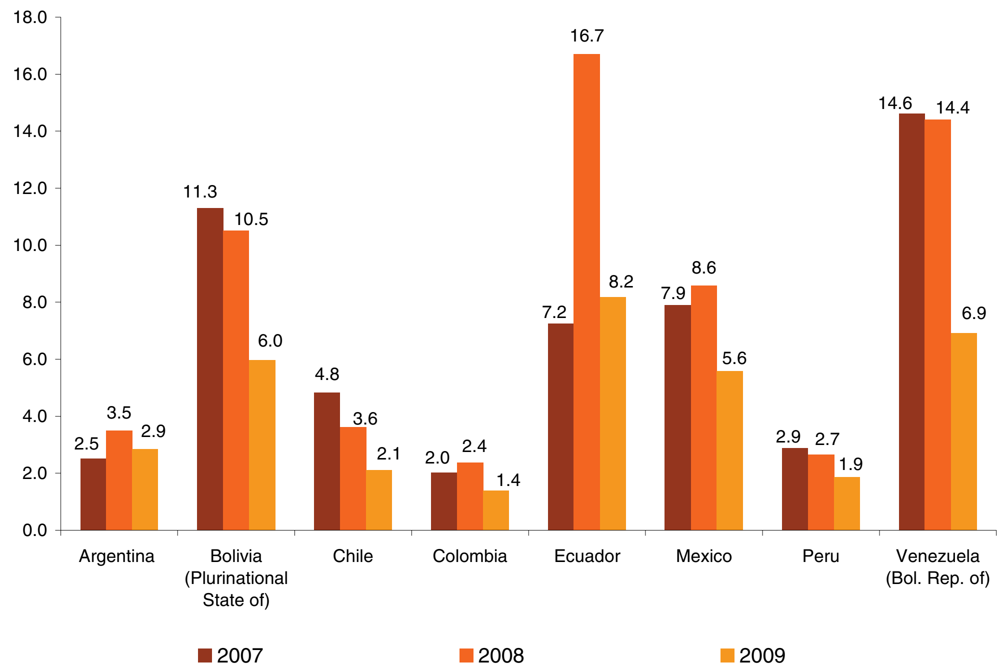
Source: C. Gómez Sabaini, "Evolución y situación tributaria actual en América Latina: una serie de temas para la discusión", *Tributación en América Latina. En busca de una nueva agenda de reformas*, ECLAC books No. 93 (LC/G.2324-P), O. Cetrángolo and J.C. Gómez Sabaini (comps.), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC). United Nations publication, Sales No. S.07.II.G.

III. HOW IS THE INTERNATIONAL CRISIS LIKELY TO IMPACT TAX SYSTEMS?

Although it is still difficult to determine the magnitude of the impact of the crisis on tax revenues in the countries of the region, criteria can be established to differentiate between those with exportable primary products that represent potential large tax bases (such as oil, copper, natural gas and commodities) and those that lack such natural resources and whose tax revenues depend on income levels and domestic economic activity.

As ECLAC (2008a) points out in relation to the first group, a number of the region's countries garner major tax revenues from the exploitation of basic resources, that is, the Bolivarian Republic of Venezuela, Mexico, Ecuador and Colombia (petroleum), the Plurinational State of Bolivia (gas), Chile and Peru (mining), and Argentina (agricultural goods) (see figure 10).

Figure 10
LATIN AMERICA (8 COUNTRIES): REVENUES OF COUNTRIES WITH ECONOMIES BASED ON PRIMARY PRODUCTS
(Percentages of GDP)



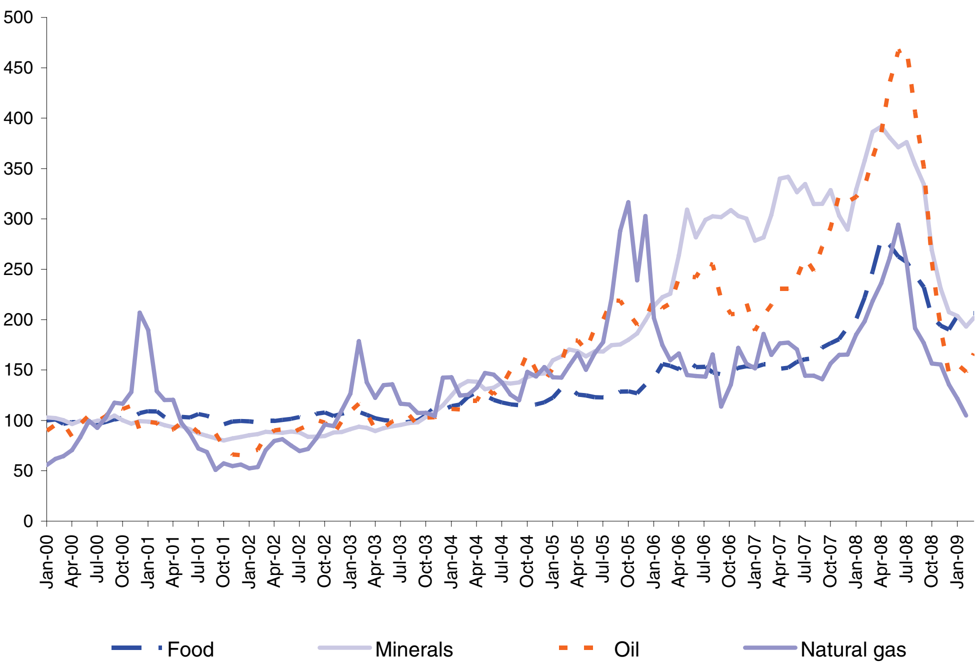
Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC).

The second group includes mega-economies in the region, such as Brazil, which has achieved a sustained increase in its tax revenues during the past decade, as well as other economies where the tax burden has risen only slightly, or has even fallen somewhat, as in Central America.

In the case of the first group of countries, fiscal resources are highly volatile, given the pronounced price instability of the goods in question, especially during times when consumption in the developed countries is declining sharply due to the economic crisis.

In the current crisis, a number of different factors strongly impact tax revenues from these goods, affecting either their prices or the volumes sold. There has been a notable drop in the prices of commodities, which, after reaching near-historical levels, have begun to fall significantly, as shown in figure 11. This primarily affects the South American countries.

Figure 11
COMMODITY PRICE INDEX (2000=100)



Source: Prepared by the authors, on the basis of information provided by the United Nations Conference on Trade and Development (UNCTAD).

At the same time, the recession in the developed economies and the significant slowdown in the developing countries will have a negative impact on trade flows, since there will be a decline in demand for Latin American goods and services. The following table charts the abrupt slowdown in world and regional growth.

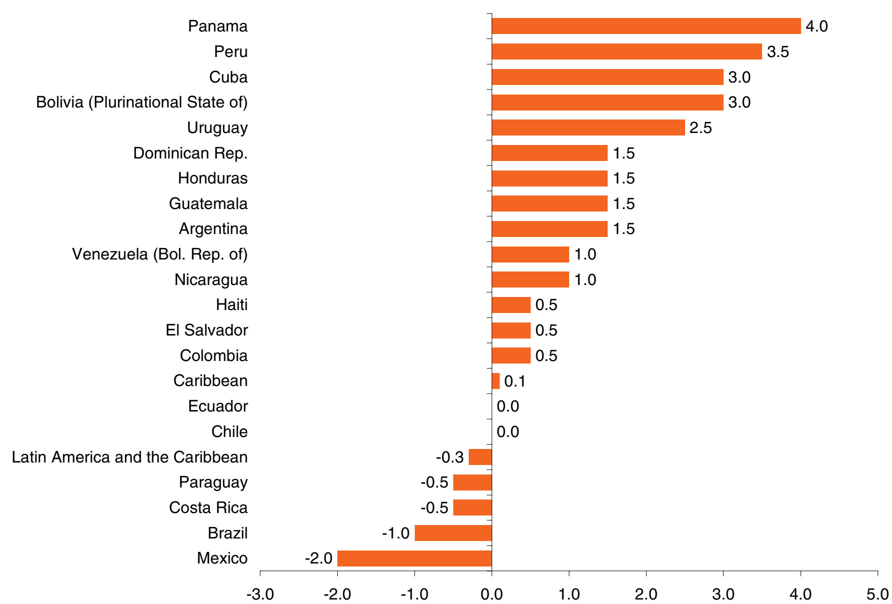
Table 2
PROJECTED VARIATIONS IN GDP IN DIFFERENT REGIONS, 2009 AND 2010
(Percentages)

	2009		2010	
	April WEO	**Consensus**	**April WEO**	**Consensus**
World economy	-1.3	…	1.9	…
Developed countries	-3.8	…	0.0	…
- North America	-2.7	-2.7	0.6	1.8
- Western Europe	-4.2	-3.3	-0.4	0.2
Developing countries	1.6	…	4.0	…
- Africa	2.0	…	3.9	…
- Latin America	-1.5	-1.4	1.6	2.2
- Asia	4.8	4.7	6.1	6.9
- Eastern Europe	-3.7	-2.9	0.8	1.9

Source: Prepared by the authors, on the basis of International Monetary Fund "Overview of the World Economic Outlook Projections", Washington, D.C., April 2009; and Consensus Economics, "Latin American Consensus Forecast", April 2009.

As regards the slowdown in Latin America and the Caribbean in particular, ECLAC estimates that, on average, the economy will contract by 0.3% in 2009; that the countries most affected will be Mexico (-2.0% growth), Brazil (-1.0%), Costa Rica (-0.5%) and Paraguay (-0.5%), while Panama, Peru, Cuba and the Plurinational State of Bolivia will maintain positive growth of 3.0% or higher, and Ecuador and Chile will see a GDP increases of around 0% in 2009 (see figure 12).

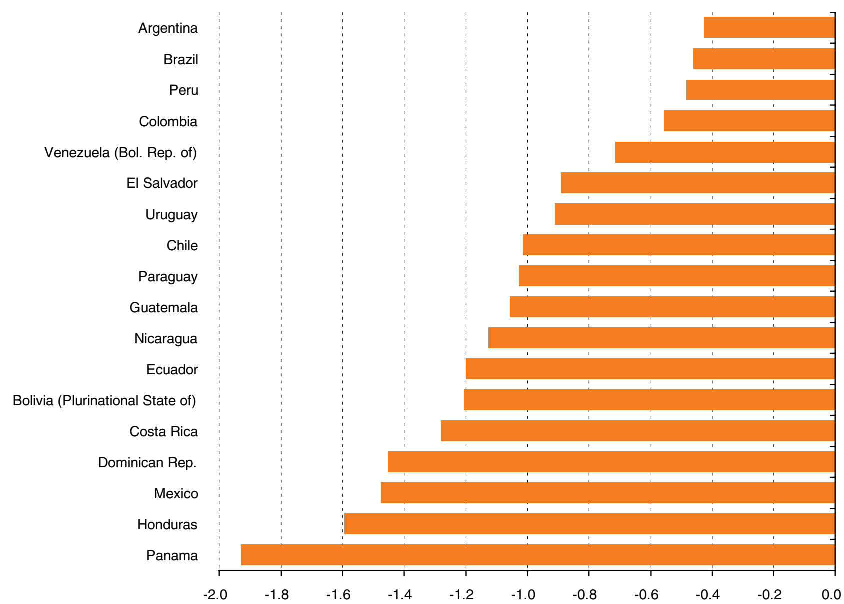
Figure 12
LATIN AMERICA AND THE CARIBBEAN: ESTIMATED GROWTH IN 2009
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC).

As mentioned above, this recession/slowdown reduces international trade flows, negatively affecting the tax revenues of both groups of countries. However, the effect on exports will not be the same across all of the region's countries, but rather will depend on the export destinations and types of products and services involved. Accordingly, Mexico and the Central American countries are expected to be most affected by the fall in export volume, while the negative impact in South America will be less severe (see figure 13).

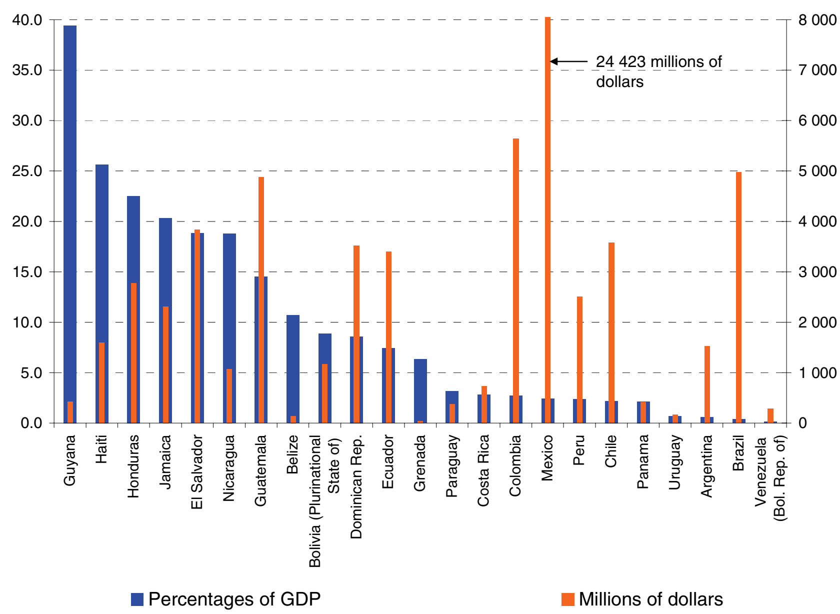
Figure 13
LATIN AMERICA AND THE CARIBBEAN (18 COUNTRIES): IMPACT OF THE EXPECTED VOLUME DECLINE IN GOODS AND SERVICES EXPORTS FOR LATIN AMERICA
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC).

A fourth element affecting the level of economic activity and tax revenues is the downturn in private consumption, both by residents and by the tourist industry, which has become quite significant in many countries. The reduction in domestic consumption is also affected by the lower levels of remittances sent by citizens living abroad, which ECLAC has estimated at US$ 69 billion for 2007. Naturally, the importance of remittances varies widely from country to country, being most significant in the Caribbean and Central America and, within South America, in the Plurinational State of Bolivia and in Ecuador. Thus, a 20%-30% decline in remittances means a corresponding 10-20 billion dollar decline in resources.

Figure 14
LATIN AMERICA AND THE CARIBBEAN: CURRENT TRANSFERS (CREDIT), 2007
(Percentages of GDP and in millions of dollars)



Source: Economic Commission for Latin America and the Caribbean (ECLAC).

Fifth, tightened credit in the production and consumption sectors, along with growing uncertainty, is delaying investment decisions in a wide range of activities, leading to a loss of work income and employee benefits. This has an immediate impact on tax revenues from payroll and wage withholding and, in a less immediate way, leads to less money in the form of advance payments on worker benefits. The loss of income tax revenue on business profits will be recovered only in the long term, since nearly all of the countries have provisions allowing losses to be charged against future profits.

Sixth, although the slowdown in traditional and non-traditional exports —including "*maquila*" activity in countries where such activity is important— does not have an immediate impact, since these activities are not taxed, the slowdown nevertheless has a highly significant impact on taxes from wages, salaries and benefits.

Seventh, these economic and financial conditions are clearly producing some shrinkage, along with a decrease in tax compliance. Although the countries have adjusted the interest rates they charge for late payments, the financial constraints of the last few months can be expected to increase late payment of taxes.

Finally, the rapidity of the onset of the crisis during 2008, which took a number of countries by surprise —despite the fact that it had been evident in the United States since the second half of 2007— created distortions in budget estimates for 2009. It must be borne in mind that the budget process generally begins six months before the start of the fiscal year, and at the time in question many countries did not yet have estimates projecting the end-2008 situation. Moreover, budgets are normally submitted to legislatures around September —a point at which the crisis was still in its initial stage. Thus, revenues were calculated based on higher commodity prices than projected later for 2009, and the explicit purpose of the actual or projected measures was in many cases to weaken the effects of what at the time was accelerating inflation. These circumstances led to an underestimation of tax revenues, with significant differences between amounts budgeted and subsequent realities.

A comprehensive analysis of tax revenues reveals a series of common facts, and confirms the impact of the elements cited above. First, there has been an immediate initial impact on import taxes, with reductions of around 20% over the previous year. Although the reduction in imports has an immediate effect on revenues during slowdowns, these revenues also recover quickly when economic conditions change.

Second, the decline in imports not only impacted revenue from import tariffs/duties, but also had an effect on the value added tax charged at customs. This is especially worrisome in terms of the inflow of public funds, given the importance of customs-generated VAT, which in many countries is between 40% and 50% of total VAT revenues.

Given the diversity of circumstances affecting the countries, it is difficult to determine the quantitative impact of the loss of tax revenue. As mentioned above, however, one can, for the purposes of analysis, differentiate between the situation in countries that have received significant revenue from natural resources in the last few years and those that lack such sources of revenue.

Although the current status of public accounts and fiscal policy in the region is undeniably better than in previous crises, some warning signs can be detected with regard to the capacity of public sectors to successfully deal with the crisis. Much of the improvement in the fiscal situation during the last several years is the result of the steady increase in commodity prices between 2002 and 2008. Thus, a sharp decline in these prices could seriously jeopardise the fiscal achievements. As shown in detail in ECLAC (2008b), the structural fiscal balance of the region's countries is, on average, less favourable than the observed fiscal balance.[11] This is true for the region overall, but is particularly notable in countries that produce exportable commodities, for which the gap between structural fiscal balance and observed balance widened considerably in 2007 and in the first half of 2008. Although it is difficult to project, the estimated fiscal position for 2009 indicates that a significant portion of the 2007-2009 revenues was composed of extraordinary revenue, and hence will be difficult to sustain.

The increase in fiscal revenue between 2002 and 2008 is strongly linked to tax revenues from the exploitation of natural resources. In countries like the Bolivarian Republic of Venezuela, Ecuador, Mexico and the Plurinational State of Bolivia, these revenues are responsible for over 30% of fiscal resources, and they are also important in Argentina, Chile, Colombia and Peru, where they represent approximately 18% of the total. According to Jiménez and Tromben (2006), the changing revenue from these sources is substantially more volatile than revenue from other sources —a point confirmed dramatically by the most recent quarters.

As regards tax revenue from exploitation of commodities, an estimate by ECLAC (2008a), updated for the present paper, projects a drop on the order of 3.4% of GDP, and one of roughly 0.5% of GDP for the other revenue sources, with wide country-to-country variation in both cases, and major differences in assumptions about growth rates, prices, and elasticity of tax revenues for the different countries. Thus, the overall impact on public revenues from contracting demand and declining prices among countries whose economies are specialised in primary products is expected to be around 3.8% of GDP (see table 3).

---

[11] For more details on measurements of cyclically adjusted performance, see ECLAC (2008b).

Table 3
LATIN AMERICA AND THE CARIBBEAN: DECLINE IN FISCAL RESOURCES FROM 2008 TO 2009
(Percentages of GDP)

	Effect on commodity prices	Effect of level of economic activity and measures	Total
Countries specializing in commodities	-3.4	-0.4	-3.8
Countries not specializing in commodities	…	-0.5	-0.5

Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC).

As a result of these various factors, the abrupt slowdown of the regional economy in 2009 may be expected to have a negative impact on income distribution and poverty levels, since unemployment and informal employment are expected to increase, median incomes of workers are expected to fall (especially in the informal market), and less income is expected to be available due to the decline in remittances. Notably, poor households were most affected by the increase of inflation in 2008, which was due primarily to rising food prices.

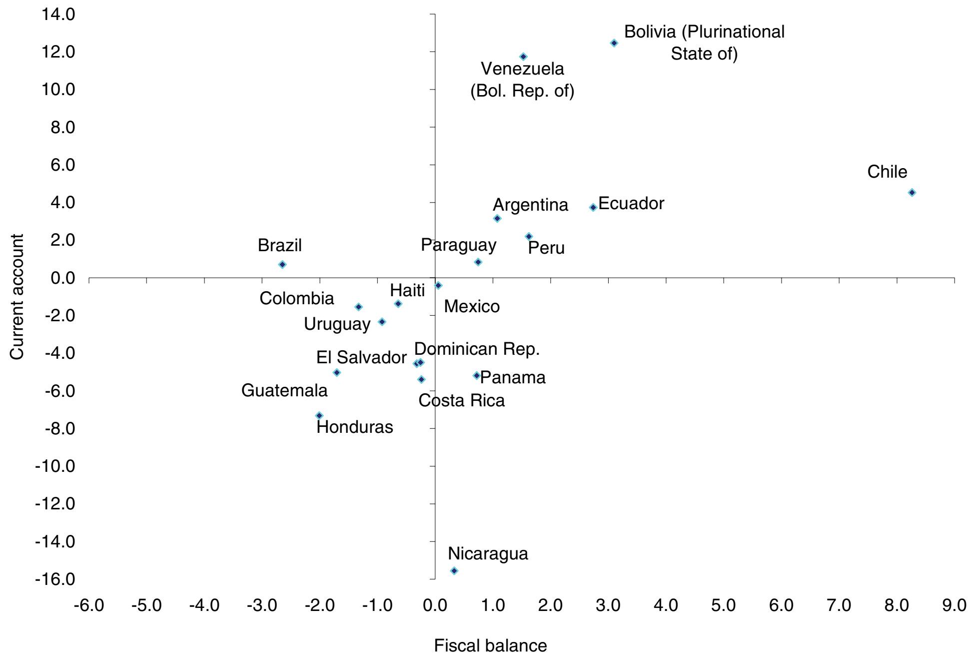
Fiscal and tax policies intended to confront the economic and financial crisis must take account of these circumstances and be designed accordingly.

In view of this situation, how much macroeconomic latitude do the countries have in addressing the crisis and implementing countercyclical policies?

The region has grown in unprecedented fashion for over five years and has maintained a current account surplus. In addition, fiscal accounts have improved as a consequence of an increase in public revenue and responsible management of spending, which led to a significant decline in debt as a percentage of GDP in the non-financial public sector (from an average of 65% in 2002 to approximately 30% in 2008). At the same time, the region experienced an improvement in debt management through a variety of debt issuances and restructurings that made it possible to improve both the maturity profile and the interest rates. At the same time, the region's capital inflows, the current account surplus, and FDI led to a significant accumulation of foreign currency, reaching an average of approximately 15% of GDP.

All of these factors have made it possible to reduce the region's vulnerability. Thus, the countries of Latin America find themselves in a better macroeconomic position than was the case during past crises, as shown by the following chart.

Figure 15
LATIN AMERICA AND THE CARIBBEAN (19 COUNTRIES): CURRENT ACCOUNT BALANCE AND FISCAL BALANCE, 2006-2007
(Percentages of GDP)



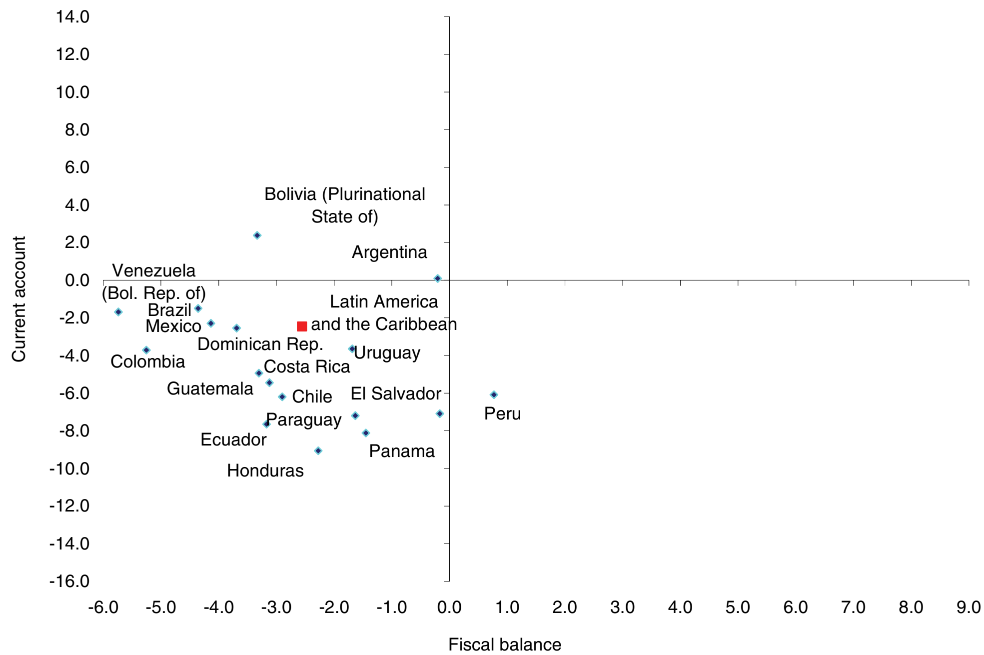
Source: Economic Commission for Latin America and the Caribbean (ECLAC).

Note: The data refer to the central government except in the cases of Argentina, Brazil, Colombia, Ecuador, Mexico and the Plurinational State of Bolivia, where the data refer to the non-financial public sector.

In 2006-2007, a number of the region's countries had twin surpluses (in their current accounts and fiscal accounts), but in 2008 this situation began to change, and most of the countries now have twin deficits, which are expected to become more pronounced in 2009 (see figure 16).

In short, the challenge of fiscal policy will be to manage the inevitable drop in revenue (associated with the economic slowdown and the decline in commodity prices) while protecting expenditures in certain categories (education, social protections, infrastructure) that are vital in preventing increased poverty —a prerequisite to future growth. Fortunately, the region's governments are not exacerbating the crisis; thus, stimulating the economy with fiscal interventions remains an option. In practice, the room for fiscal manoeuvre varies widely from country to country, and will depend on the presence of savings accumulated during good times, the rigidity of expenditures, the duration of the crisis and the capacity for prudent borrowing.

Figure 16
LATIN AMERICA AND THE CARIBBEAN (17 COUNTRIES): CURRENT ACCOUNT BALANCE AND FISCAL BALANCE, 2009
(Percentages of GDP)



Source: Economic Commission for Latin America and the Caribbean (ECLAC).

Note: The data refer to the central government except in the cases of Ecuador and Mexico where the data refer to the non-financial public sector, and the Plurinational State of Bolivia, where the data refer to general government.

IV. EFFECT OF THE INTERNATIONAL CRISIS ON THE EXPOSURE RATIO OF TAX COLLECTIONS

A. PRELIMINARY CONSIDERATIONS

The effect of the international crisis on tax revenues in the region’s countries will differ from one country to another, and the scope of the fiscal impact in each will depend not only on socioeconomic characteristics, but also on its tax system —specifically, on its structure, level of collections and specific sources of revenue.

Thus, it is important to determine what characteristics must be considered, and how these vary between countries —as, for example, in the above-cited case of revenue deriving from the exploitation of natural resources. None of the elements enumerated below have unequivocal consequences. Moreover, although they may have a negative effect on incomes in times of crisis, they are not necessarily a problem during stable growth periods, and therefore should not necessarily be changed.

The following review is far from exhaustive, but rather attempts to limit itself to those elements that have a direct impact on tax revenues. Thus, the elements in the analysis will include the importance in the overall revenue mix of taxes that are sensitive to the effects of the crisis, that is, import taxes, consumption taxes, taxes on social security, and taxes on exportation of natural resources.

After presenting the selected elements, there will be a country by country analysis, examining a country's current situation, and then determining an exposure ratio that approximates both its exposure and its ability to raise revenue during the present crisis, in comparison to the other countries in the region.

Finally, the usefulness of this exercise, beyond the resulting indicator, lies in the fact that it will provide a better understanding of the channels through which the current crisis is affecting tax revenues in Latin America and the Caribbean.

B. EXPLANATION OF VARIABLES USED IN DEVELOPING THE EXPOSURE RATIO

In defining the ways in which the current crisis will impact revenues, it should be noted that this is an external crisis transmitted through the channels that link Latin American and Caribbean economies to the rest of the world.

Because of this, the main effects in the region are: a decline in exports (in terms of both volume and price), stringent limitations on access to capital markets, a drop in remittances, and a reduction in foreign direct investment. This, in turn, indirectly reduces domestic economic activity, consumption and profits. How do these effects relate to tax collections? What are the most sensitive sources of revenue in this context? These are the questions that have guided the selection of variables used to assess the risk exposure that the crisis produces vis-à-vis tax revenues.

The ultimate selection of variables has also been effected by the information that was available, thus limiting the precision of the indicators. One clear example of this can be seen if one attempts to compare the efficiency of different tax administrations. Given the premise that the most efficient are best positioned to confront the crisis and minimise their loss of revenue, in the absence of a better indicator we have used the productivity of the VAT as a reflection of a country's tax administration capacity.

Taking these constraints into account, we then analyse different attributes of the tax system of each of the region's countries, weighting them according to their apparent sensitivity to the above-mentioned economic effects, while also ranking and weighting them based on their relative positions in this regard.

For example, the element that entails the greatest exposure for a tax system appears to be its dependence on oil, mineral or food exports, all of which have suffered sharp price declines and reduction of demand. Additionally, a low long-term tax burden appears to be a structural feature that reflects institutional rigidity or a lack of capacity for public revenues to adjust to crises.

The attributes, then, considered in our analysis and detailed below, in order of importance, are:

1. Natural resources-based revenue as a proportion of total revenue
2. Degree of institutional rigidity
3. Import taxes as a proportion of total taxes
   a) Proportion of exports destined for the United States
4. Value added tax as a proportion of total revenue
   a) Productivity of the VAT
   b) Income from remittances
5. Social security contributions as a proportion of total revenue
6. Income tax as a proportion of total revenue
   a) Proportion of income taxes collected from business, vs. proportion collected from individuals

1. Natural resources-based revenue as a percentage of total tax revenue

As indicated above, dependence on taxes from natural resources exploitation is one of the greatest risk factors at times of international crisis and price declines. Although this price instability strengthened revenues and fiscal balance for many of the region's countries between 2003 and 2008, providing greater latitude to deal with the crisis, it also increased vulnerability to sudden reductions in revenue. At the same time, having a large amount of revenue based on natural resources exploitation acts in many countries as a barrier to establishing traditional and more stable taxes such as the income tax. This is true for Ecuador and the Plurinational State of Bolivia, as well as for Mexico, which has a lower tax burden.

Among the most exposed countries in this respect are the Bolivarian Republic of Venezuela (over 50% of whose total revenues derive from oil), Mexico and the Plurinational State of Bolivia (with approximately 35% of revenues from oil and natural gas, respectively), Ecuador (25% from oil), Panama (22% related to the Canal) and Chile (18% from copper). Countries with similar but less dependent situations are Peru and Colombia (16% from mining, and 13% from oil, respectively) and Argentina (9% from exportation of agricultural goods).[12]

Table 4

LATIN AMERICA AND THE CARIBBEAN (17 COUNTRIES): FISCAL REVENUES DERIVED FROM NATURAL RESOURCES, AS A PERCENTAGE OF TOTAL REVENUE, 2007

Greater than 17%						Between 17% and 1%			Less than 1%							
VEN	**MEX**	**BOL**	**ECU**	**PAN**	**CHL**	**PER**	**COL**	**ARG**	**BRA**	**URY**	**CRI**	**NIC**	**DOM**	**SLV**	**PRY**	**GTM**
50.6	35.4	34.5	24.7	21.8	17.6	15.7	13.4	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC).

[12] Argentina is a special case, since the export duties were imposed in 2002 for various reasons, particularly due to the severe devaluation of the peso that year, with the sharp increase in international prices playing a role starting in 2004. Since exportable goods are part of the basic basket of consumer goods, export duties were raised to prevent the increasing international prices and changes in the exchange rate on the basic basket from affecting consumer goods.

2. Institutional rigidity

One major factor is the ability to reform tax systems, increase the tax burden or create new sources of funds. In this sense, the institutional rigidity of some of the region's countries, and the constraints that this places on their tax systems, constitutes one of the principal causes of the low tax burden. Moreover, during crises there is a need for institutions that are capable of bringing about needed reforms and that do not block necessary changes.

Those countries that have historically had low tax revenues tend to have greater funding problems during crises, generally because of the fact that institutional and political constraints make it difficult to increase taxes.

By way of regional comparison, the countries with the highest tax burdens, such as Brazil, Uruguay, Argentina and Chile, with levels of over 20% of GDP, have historically shown greater ability to collect taxes than countries with low tax burdens, such as Mexico, Guatemala and Paraguay, where tax revenues represent barely 10% of GDP, and where structural problems with tax collections are aggravated during crises. In addition, a greater tax burden means a greater ability to reallocate funds.

For these reasons, we have taken tax burden as a key indicator of the impact of the crisis on revenue, placing the countries with lower burdens in the group of countries more exposed to risk from the crisis.

Table 5
LATIN AMERICA AND THE CARIBBEAN (17 COUNTRIES): TAX BURDEN, 2007

Less than 15%				**Between 15% and 23%**										**Greater than 23%**		
MEX	**GTM**	**PRY**	**ECU**	**SLV**	**COL**	**DOM**	**PAN**	**VEN**	**PER**	**BOL**	**CHL**	**NIC**	**CRI**	**URY**	**ARG**	**BRA**
11.7	12.5	12.9	14.4	15.0	15.8	16.0	16.6	17.0	17.2	20.1	21.3	21.9	22.5	24.1	29.1	36.2

Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC).

Note: Includes social security contributions.

3. Import taxes as a proportion of total tax revenue

One of the major consequences of the financial crisis has been a significant reduction in international trade, which, for the region, entails not only a problem for exports, but also a reduced capacity to import, and hence a decline in import tax collections.

The problems associated with a taxation system that depends on foreign trade have been amply discussed in the literature, and the experience of the Latin American countries since the beginning of the twentieth century abounds in funding problems associated with drops in the volume of foreign trade. This was one of the reasons that import taxes diminished in importance to their current level, which averages 6.8% of total tax revenue. However, for some countries, the weight of these taxes continues to make them vulnerable to external crises. Therefore, the proportion of revenue derived from import taxes ranks third as a weighting factor.

The countries in which import taxes have the greatest weight are Panama, Paraguay, the Dominican Republic and Ecuador, with levels near 10% of total tax revenue. At the other extreme (under 3%) are Mexico, Chile and Brazil.

Table 6
LATIN AMERICA AND THE CARIBBEAN (17 COUNTRIES): IMPORT TAXES AS A PERCENTAGE OF ALL TAX REVENUES, 2007

Greater than 10%				Between 10% and 5%							Less than 5%					
PRY	PAN	DOM	ECU	VEN	GTM	SLV	COL	URY	CRI	BOL	NIC	PER	ARG	MEX	CHL	BRA
10.8	10.7	10.7	10.3	9.1	9.0	6.7	6.3	5.8	5.6	5.4	4.7	3.8	3.1	2.5	1.6	1.3

Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC).

At the same time, the effects on each country's trade will depend on the situation of its trade partners. Thus, countries for which a high proportion of transactions is associated with the Untied States will suffer greater impact than will others, since their export market will contract. This reduction also implies reduced capacity to import and, therefore, lower tax revenues from imports.

For these reasons, we differentiate between countries with a high percentage (over 35%) of exports destined for the United States and countries with low percentages (under 35%), ranking the former factor third and the latter fourth for weighting purposes.

Note, however, that the impact on tax revenues will be attenuated in countries that have relatively long-standing bilateral trade agreements with the United States, since the lower import-related revenues will already be incorporated in their tax structure, as is the case with Mexico.

The countries that have the most significant trade links to the United States, with over 40% of their exports destined for the United States, are Mexico, the Bolivarian Republic of Venezuela, Nicaragua, Ecuador and Costa Rica.

Table 7
LATIN AMERICA AND THE CARIBBEAN (17 COUNTRIES): EXPORTS TO THE UNITED STATES AS A PERCENTAGE OF ALL EXPORTS, 2006

Greater than 35% of total exports								Less than 35% of total exports								
MEX	VEN	NIC	ECU	CRI	COL	DOM	PAN	GTM	SLV	PER	BRA	CHL	URY	BOL	ARG	PRY
82.2	48.8	46.5	43.3	42.5	40.8	40.2	35.7	31.4	28.6	19.4	18.0	16.1	13.6	9.8	8.7	3.5

Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC).

4. VAT revenues as a percentage of total tax revenue

As indicated above, the rising tax burden of the last two decades in the region's countries was based on the expansion of the value added tax, making it the most important source of tax revenue.

The high and growing dependence on the VAT has increased dependence on domestic private consumption as a source of tax revenue —a source that shrinks quickly in response to crisis. This problem is intensified by the large role of import-VAT revenues, which change even more quickly than does final consumption during crises, especially in circumstances such as the present one, where the decimation of international trade has been so rapid. Although the VAT paid at the time of import is later credited against domestic sales, its capture at the moment of entry into the country improves fiscal cash flow.

The countries in which the VAT plays the largest roles are Guatemala (48% of total tax revenue) and —each with 45%— the Plurinational State of Bolivia, El Salvador and Paraguay. At the other extreme are Costa Rica (27%) and Panama (13%). The remaining Latin American countries fall between 30% and 40%. By way of comparison, the figure for the OECD countries is 18.9%.

Table 8
LATIN AMERICA AND THE CARIBBEAN (17 COUNTRIES) AND OECD: VAT AS A PERCENTAGE OF TOTAL TAX REVENUE, 2007

Greater than 40%				Between 40% and 30%											Less than 30%		
GTM	**BOL**	**SLV**	**PRY**	**ECU**	**URY**	**CHL**	**BRA**	**ARG**	**NIC**	**COL**	**VEN**	**PER**	**MEX**	**DOM**	**CRI**	**OCDE**	**PAN**
48.1	45.8	45.5	45.3	39.0	38.0	37.8	37.2	36.9	34.8	34.6	33.6	33.5	31.3	30.7	27.5	18.9	13.0

Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC).

As mentioned above, the reduction in the VAT has been intensified (i) by the decline in imports; (ii) by the inefficiency of tax administration and high evasion rates; (iii) by the decline in remittances, which are of great importance in some countries and strongly affect consumption levels; and (iv) by the decline in tourism, which principally affects the Central American and Caribbean countries.

We have attempted, therefore, to include these factors in weighting the VAT as a proportion of tax revenue, differentiating between countries with low VAT productivity and high remittances, countries with only one of these two attributes, and countries with neither.

As indicated above, there have been no regional studies to provide clear indicators of the quality of tax administration. As a result, evasion rates and the productivity of the VAT are commonly assumed to reflect administrative efficiency. In this case, since only a minority of countries have reliable, methodologically equivalent data on evasion, comparison would be inappropriate. Therefore, we have used VAT productivity (collections per percentage point of the rate) as an indicator. The productivity ratio of the tax provides an idea of the tax's structure, as well as the efficiency with which it is administered, and we may therefore consider it to be a variable reflecting the administrative capacity of the institutions involved.

VAT productivity increased in the last 20 years, as a result of efforts made to strengthen collections, improve tax administration and reduce evasion —but, above all, owing to a broadening of tax bases as a result of eliminating exemptions for some goods and by incorporating services, which had been excluded from the tax base.

Believing that greater productivity in VAT collection implies more efficient tax administration and a better state of preparedness for crisis, the present exercise considers countries with more productive VATs to be better equipped for the crisis. These include the Plurinational State of Bolivia, the Bolivarian Republic of Venezuela, Argentina, Costa Rica, Ecuador and Chile.

Table 9

LATIN AMERICA AND THE CARIBBEAN (12 COUNTRIES): PRODUCTIVITY OF VAT, 2007

	Greater than 40%							**Less than 40%**				
Country	**BOL**	**VEN**	**ARG**	**CRI**	**ECU**	**CHL**	**URY**	**COL**	**PER**	**DOM**	**MEX**	**PAN**
VAT collections as percentage of GDP	9.2	5.7	6.1	10.4	6.2	5.6	7.9	9.1	5.5	5.8	4.9	3.7
VAT rate (as of 2007)	13.0	11.0	12.0	21.0	13.0	12.0	19.0	23.0	16.0	17.0	16.0	15.0
VAT productivity	**71**	**52**	**50**	**48**	**47**	**42**	**40**	**35**	**34**	**31**	**24**	**21**

Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC) and KPMG (KPMG's *Corporate and Indirect Tax Rate Survey, 2007*).

Precise information available on remittance income indicates that, in a number of countries, consumption is strongly dependent on remittances. The countries with the highest levels of remittances are El Salvador and Nicaragua, where these represent approximately 19% of GDP, and Guatemala, where they represent approximately 15% of GDP (2007 figures). For present purposes, we consider remittance levels above 5% of GDP to be "high". In addition to the countries mentioned above, this group includes the Plurinational State of Bolivia, the Dominican Republic and Ecuador (see figure 14).

These elevated levels are falling sharply, since immigrant workers are the first to lose their jobs in times of adjustment and economic contraction. This causes a very significant loss in income and domestic consumption, leading to lower VAT revenues.

5. Social security contributions as a percentage of total tax revenue

Following the VAT in the weighting order, is revenue from social security. Since it can be assumed that contributions to the social benefits system decline more, proportionally, during crises than does GDP, there will be a major loss of revenue associated with social security contributions during times of crisis.

As indicated above, the contraction of credit in productive and consumption sectors, as well as increasing uncertainty, are delaying investment decisions in a wide range of activities, while also increasing unemployment and informality. This has an immediate impact on public revenue from payroll and wage-based taxes. Thus, countries that have a large flow of tax revenues from social security contributions will see their revenue diminish significantly. These countries include Brazil, Costa Rica, Ecuador, México, Panama and Uruguay —where social security represents over 20% of tax revenue.

Table 10

LATIN AMERICA AND THE CARIBBEAN (17 COUNTRIES): SOCIAL SECURITY CONTRIBUTIONS AS A PERCENTAGE OF TOTAL TAX REVENUE, 2007

Greater than 20%							**Between 20% and 10%**				**Less than 10%**						
PAN	**CRI**	**ECU**	**URY**	**BRA**	**OCDE**	**MEX**	**NIC**	**ARG**	**COL**	**SLV**	**PRY**	**BOL**	**PER**	**CHL**	**VEN**	**GTM**	**DOM**
34.1	29.3	28.1	25.6	24.7	25.6	23.3	17.8	16.9	14.4	10.8	9.7	9.1	9.0	6.3	5.1	1.3	0.4

Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC).

6. Income tax as a percentage of total tax revenue

As noted in the assessment of tax systems presented in this paper, one of the principal attributes relates to the minor role played by income tax. Although this role has increased in the last few years, it remains far from the levels seen in the developed countries. Another characteristic of the region's countries that distinguishes them from the developed countries is the balance between corporate and personal income tax, with the former being strongly predominant.

Based on our analysis so far, this implies a smaller immediate loss of revenue from corporate income tax during the crisis, due to the way in which corporate income tax is paid: it is applied to the profits of the preceding year rather than to current receipts, as is true for the personal income tax. For this reason we conclude that a low income tax entails greater risk exposure for the region's countries than does a high income tax. As the following table shows, the most exposed countries are Uruguay, Paraguay and the Plurinational State of Bolivia, where income tax accounts for approximately 15% of tax revenues.

Table 11
LATIN AMERICA AND THE CARIBBEAN (17 COUNTRIES): INCOME TAX AS A PERCENTAGE OF TOTAL TAX REVENUE, 2007

Less than 25%									Between 25% and 40%					Greater than 40%		
URY	**PRY**	**BOL**	**CRI**	**ARG**	**ECU**	**BRA**	**NIC**	**DOM**	**GTM**	**PAN**	**SLV**	**COL**	**CHL**	**MEX**	**PER**	**VEN**
15.0	15.8	16.2	17.4	18.7	19.2	21.4	24.9	25.3	26.9	29.0	30.5	35.5	39.5	40.3	42.2	45.2

Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC).

For countries where the personal income tax is most important, the loss of revenue occurs more quickly, particularly considering that personal income tax in Latin America is, in reality, a tax on personal wages, and thus is charged on the amount received during the current year; thus, a drop in employment immediately translates into a decline in tax revenues. We must therefore differentiate the countries in which the personal income tax is higher than the average because they have a greater risk of losing revenue. The countries most exposed to risk on this basis are the Dominican Republic, El Salvador, Mexico and Panama.

Table 12
LATIN AMERICA AND THE CARIBBEAN (14 COUNTRIES): BREAKDOWN OF INCOME TAX, 2007
(Percentages)

	DOM	MEX	SLV	PAN	NIC	BRA	ARG	URY	CRI	ECU	PER	CHL	GTM	BOL
Physical persons	58,7	47,8	41,3	40,8	39,1	33,8	30,8	27,4	26,1	24,5	19,1	13,7	10,5	6,5
Firms	41,3	52,2	58,7	59,2	60,9	66,2	69,2	72,6	73,9	75,8	80,9	86,3	89,5	93,5
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC).

C. QUANTIFYING THE ANALYSIS AND DETERMINING THE RATIO

First, in developing the index, it was necessary to describe the attributes to be taken into account, and to rank them according to the importance they would have in terms of exposure to tax revenue risk during the crisis. The weighting of the different attributes parallels the order in which we have presented them above: natural resources, tax burden, import tax revenues, VAT, social security contributions and income tax.

Second, for each attribute we differentiate three groups of countries according to whether their tax revenues have high, medium or low exposure to risk, and analyse each country's situation on the basis of ECLAC tax collection figures. This categorisation reflects each country's position in relation to the other countries in the region. Thus, "low exposure" simply means less exposure than the other countries. The levels for this parameter were quantified as follows:

Table 13
WEIGHTING ACCORDING TO LEVEL OF EXPOSURE

Category	**Level of exposure**		
	High = 2	**Medium = 1**	**Low = 0**
Revenues from natural resources	Greater than 17% of total	Between 1% and 17%	Less than 1%
Tax burden	Less than 15% of total	Between 15% and 23%	Greater than 23%
Imports	Greater than 10% of total	Between 5% and 10%	Less than 5%
VAT	Greater than 40% of total	Between 30% and 40%	Less than 30%
Social security	Greater than 20% of total	Between 10% and 20%	Less than 10%
Income	Less than 25% of total	Between 25% and 40%	Greater than 40%

Source: Prepared by the authors.

Other factors that may increase exposure were also considered: the share of exports destined for the United States in relation to tax; the productivity of the VAT and the weight of remittances in relation to VAT revenues; and the structure of the income tax (the breakdown of revenue into personal and corporate income tax). An increment of 0.5 was added to the indices of those countries considered to have the greatest exposure in relation to these "sub-variables".

Third, the factors were weighted using an arbitrary criterion that can be modified to coincide with different interpretations of the importance of each category. The results are shown in table 14, and reflect the considerations regarding the importance of each category. The categories are numbered from 6 (most important) to 1 (least important).

Thus, for example, when a country has high exposure due to the fact that over 17% of its tax revenues are dependent on natural resources exploitation, its exposure is quantified as follows:

2 (high exposure) * 28.6% (weighting of natural resources) = 0.57

Table 14
WEIGHTING AS A FUNCTION OF THE IMPORTANCE OF EACH VARIABLE

Category	**Weighting**	
	No.	**Percentage**
Share represented by natural resources	6	28.6
Level of tax burden	5	23.8
Share represented by import taxes	4	19.0
Share represented by value added tax	3	14.3
Share represented by social security contributions	2	9.5
Share represented by income tax	1	4.8
Total	21	100.0

Source: Prepared by the authors.

By applying these criteria to the data from each country, we arrived at a combined index that brings together assessments of each of the attributes analyzed, resulting in a figure ranging between 0 (lowest possible exposure) to 2.19 (highest). The range is then converted to a 0-100 scale to more easily identify the relative position of each country.

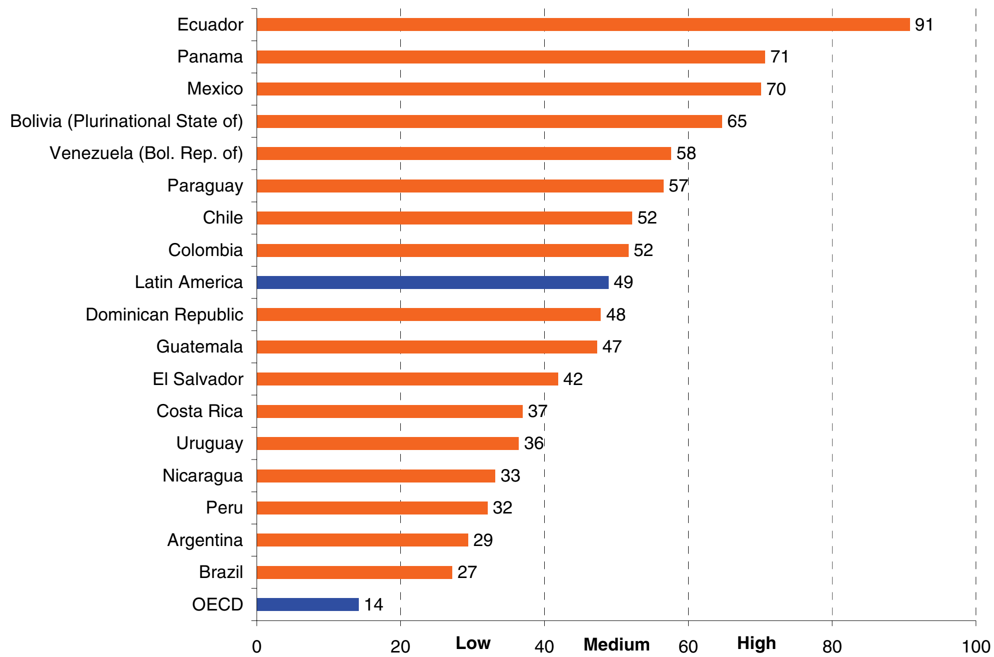
The results of the index and a ranking of the countries based on it are presented in the following graph, which shows the countries with greatest exposure to be Ecuador, Panama, Mexico and the Plurinational State of Bolivia. These countries have the three attributes considered most important in the analysis: dependence on natural resources-based revenue, low tax burden and (except for Mexico) import taxes that play a relatively large role in tax revenues. At the same time, 39% of Ecuador's tax revenues derive from the VAT and 28% from social security, tax categories also identified as particularly sensitive to economic contraction, making Ecuador the most exposed country in the region, with a ratio of 91/100.

The countries in the medium-exposure group, with ratios between 40/100 and 60/100 are the Bolivarian Republic of Venezuela (58), Paraguay (57), Chile (52), Colombia (52), the Dominican Republic (48), Guatemala (47) and El Salvador (42).

Finally, the least exposed countries (with ratios between 20 and 40) include Costa Rica (37), Uruguay (36), Nicaragua (33), Peru (32), Argentina (29) and Brazil (27), with the regional average being 49/100.

By way of reference, or as a framework for comparison with the developed countries, the same exercise was performed including the average of the OECD countries, resulting in a ratio of 14/100, the lowest in the sample. This result is justified, since, compared with the Latin American countries, the OECD countries have high taxation in relation to GDP, do not depend on natural resources or import taxes for their revenue, and have much lower levels of consumption taxes. This does not mean that the OECD countries will not lose, or are not losing, revenue. The exercise is only a reflection or simulation of how the crisis would affect a country located in Latin America that had the public revenue structure of an OECD country.

Figure 17
LATIN AMERICA AND THE CARIBBEAN: EXPOSURE INDEX OF TAX RECEIPTS TO THE INTERNATIONAL CRISIS



Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC).

Moreover, the results presented here are sensitive to the criteria used to weight the variables, and also depend on the availability of statistical information, since comparable information for all countries is needed in order to carry out the exercise —this being the reason that ECLAC statistics were used throughout. Consequently, the ratio only seeks to produce a general approximation of each country's exposure, and to compare this with the other countries in the region, rather than to reach specific conclusions for each individual country, which would require further analysis of the variables, as well as the inclusion of others not considered here.

The uncertainty created by crises, and the limitations on predicting their effects, require examining the ways in which they develop and impact the economy. In that sense, this exercise, beyond producing numerical results, aims to analyse the channels through which the current international crisis impacts revenues, as well as to assess the relative importance of each of the channels, in order to gain greater clarity regarding the tax revenue situation of each country and shed light on the factors that influence the situation.

V. WHAT TAX CHANGES HAVE BEEN OBSERVED, TO DATE, IN THE REGION?

A. ANTI-CRISIS MEASURES, FISCAL POLICY OPTIONS AND THE TIMING OF IMPLEMENTATION

It would appear that from mid-2007 to mid-2008 relatively few tax changes occurred, and it seemed that Latin American and Caribbean countries had managed to uncouple from the effects of the international crisis. Shortly thereafter, this theory proved incorrect, since the crisis found a channel to enter the region through commodity prices and trade and financial flows. This could explain the initial delay in adopting compensatory measures that would have provided greater preparedness to address the new international conditions.

In general terms, the region's governments have taken two types of measures in the last several months: (i) countercyclical measures to activate domestic demand and production of tradables, while moderating domestic factors that could aggravate the foreign trade imbalance; and (ii) domestic policies to reduce the regressive social effects of the crisis, as well as of possible future adjustment measures.

Naturally, the measures implemented by the different countries will depend on the effects that they face, as well as their capacities and resources. Therefore, their ability to react to the crisis varies, based primarily on their respective fiscal contexts, their international currency reserves, access to foreign financing and other factors such as the degree of monetisation, the depth of the financial market and the state of the current account.

Figures 18 summarises the measures implemented or announced by the Latin American and Caribbean countries. These have been grouped in five categories: monetary and financial policy, fiscal policy, exchange rate and foreign trade policy, sectoral policy, and labour and social policy.

As may be seen, most of the countries have adopted policies to ensure adequate liquidity.

In the fiscal area, governments have increased spending (investment projects) while lowering taxes or increasing subsidies. Notably, only some of the countries have implemented import restrictions or raised tariffs.

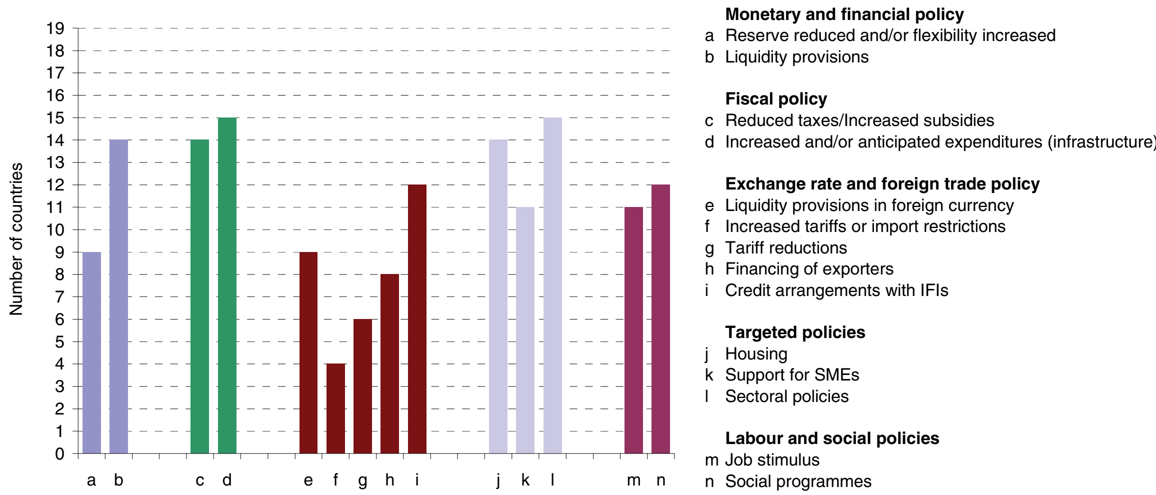
In terms of foreign trade, the governments have attempted to sustain their exports primarily by financing exporters.

With regard to targeted measures, housing programmes have in many cases been used (given their importance for employment and their high social value), as have sectoral policies (principally in the agricultural, tourism and industrial sectors).

A number of countries have also adopted measures to help SMEs, and the majority have opted to maintain or adopt social programmes rather than promote jobs creation.

Figure 18

LATIN AMERICA AND THE CARIBBEAN (19 COUNTRIES): SCOPE OF MEASURES ADOPTED TO ADDRESS THE CRISIS IN LATIN AMERICA



Source: Economic Commission for Latin America and the Caribbean (ECLAC), *The* reactions *of the* Governments *of the Americas to the* international crisis*: an overview of policy measures up to 31 March* (LC/L.3025), Santiago, Chile, 31 March 2009.

An analysis of discretionary measures directly related to fiscal policy[13] (see table 15) shows, on the spending side, that 13 countries have announced packages of measures including plans to support SMEs or agricultural sectors. In addition, 15 countries have announced spending for infrastructure investment, and 10 have included housing programmes. On the tax side, 8 countries have announced reductions in the personal income tax (temporary in two cases), and an equal number of countries has done this for corporate income tax (temporary in three cases).

Different fiscal policies generate different effects, since, in the first place, measures to increase spending have greater potential than do those based on reducing taxes. The former imply a direct increase in demand, whereas the latter generate an increase in disposable income in the private sector that, in an uncertain context such as the current one, is very likely to translate primarily into more saving. Moreover, as is well known, it is difficult in the region to quantify and measure the impact of tax deductions and incentives, usually referred to as “tax expenditures”.[14] The implementation of these deductions adds another level to the analysis, namely, the duration of the measures, which may be temporary or permanent (see table 15).

---

[13] The classification in Table 14 does not necessarily coincide with the previous chart, since many of the measures with fiscal impact are included, in figure 18, in the categories of exchange rate and foreign trade policy, targeted policies, and labour and social policies.

[14] For more detail on the problem of using tax deductions and differences in calculating “tax expenditures” in Latin America, see Jiménez and Podestá (2009).

Table 15
LATIN AMERICA AND THE CARIBBEAN (18 COUNTRIES): PRINCIPAL FISCAL MEASURES DESIGNED TO ADDRESS THE CRISIS

	Argentina	Bolivia (Plurinational State of)	Brazil	Chile	Colombia	Costa Rica	Ecuador	El Salvador	Guatemala	Honduras	Mexico	Nicaragua	Panama	Paraguay	Peru	Dominican Republic	Uruguay	Venezuela (Bol. Rep. of)
Tax system																		
Business tax reduction/Depreciation				T	X	T	X		X		T				X		T	
Personal income tax/Deductions	X		X	T	X				X	X	T		X					
Foreign trade taxes	X		T				X				X	T						
Goods and services taxes			T															
Social benefits contributions	X										T							
Other			X	X	X		T								T		X	
Public expenditures																		
Infrastructure investment	X	X	X	X	X	X	X		X	X	X	X		X	X	X	X	
Housing		X		T	X	X			X		X	X		X	X		X	
Support for SMEs or agricultural producers			X	X	X	X		X	X	X	X		X	X	X		X	X
Support for strategic sectors		X	X	X					X						X			
Direct transfers to families	T			T		X								X				
Other	T		X		X			X		X	X	X						

Source: Prepared by the authors, on the basis of figures provided by the Economic Commission for Latin America and the Caribbean (ECLAC).

Note: T represents measures announced as temporary.

However, very significant differences may still be evident if the analysis limits itself to spending increases. If this takes the form of direct transfers, the more it is possible to target sectors with a higher propensity to consume, the greater will be the impact. Nevertheless, this type of transfer is more difficult to implement in the short term, and more demanding institutionally than non-targeted transfers.

Similarly, when spending increases take the form of programmes to increase infrastructure investment, it must be borne in mind that not all projects have the same impact on employment and on demand for locally produced inputs. Given the importance of rapid implementation in these cases, there is not always a ready portfolio of needed projects.

As a result, despite the lesser potential impact of tax cuts (or non-targeted subsidies) vs. spending increases, governments often prefer the former, at least in the short term. Insofar as feasible, it is preferable to develop spending plans and implement properly evaluated investment projects, so as to promote more efficient use of public resources.

B. TAX MEASURES ADOPTED BY THE REGION'S COUNTRIES

According to a survey by ECLAC on the policies announced by countries in response to the crisis, it is possible to identify a series of measures that, in one way or another, are related to the crisis, although some may actually be responses to other circumstances. These are:

Argentina

- Tax and pension fund moratorium. Covers all tax and social security liabilities payable as of 31 December 2007.
- Reduction in employer contributions: all firms creating or regularising jobs pay 50% of contributions for the first year and 75% for the second.
- Reduction in tax on exports of wheat and maize: rates of export duty on wheat will fall from 28% to 23%, and on maize from 25% to 20%. Reduction by an additional point for every million tons of production above the recent average.
- Fifty percent reduction in tax on exports of all fresh fruit and vegetables.
- Elimination of the scheme of income tax deductions applicable to wage-earners since 2000. This measure benefits some 800,000 middle- or high-income workers.
- One-year extension of the system of incentives for the purchase of capital goods, which lowers tariffs on imported goods and provides a 14% rebate for local manufacturers in the form of vouchers that can be used to pay taxes.

Bolivarian Republic of Venezuela

- Increase in the VAT from 9% to 12%.

Brazil

- Federal government and some states have extended the time allowed for monthly tax payments, thus easing pressure on corporate cash flows.
- A series of tax cuts have been announced, totalling approximately US$ 3.7 billion, in order to boost consumption.
- The tax on financial operations will be cut from 3% to 1.5% for direct consumer credit operations and for the overdraft credit line.
- The processed products tax applicable to vehicles was temporarily cut (originally until March 2009, then for three more months up to June 2009). For the purchase of motor vehicles with displacements of up to 1,000 cc., the tax will be cut from 7% to 0%, and for those up to 2,000 cc., from 13% to 6.5%.
- Income tax tables for physical persons were revised, introducing lower rates (7.55% and 22.5%), which favour the middle class, i.e., those who earn up to US$ 900 per month.

Chile

- Stamp duty will be eliminated for all credit transactions in 2009, and the rate of this duty will be halved for the first half of 2010.
- Increase in benefits under Decree Law 701 on incentives for the forestry industry.
- Temporary reduction of monthly provisional payments of category-1 taxes (corporate income tax).
- Income tax rebates will be brought forward for natural persons in respect of the 2010 fiscal year.

- Readjustment of the maximum amount subsidised by the SENCE tax exemption, and a discount on monthly training expenditures, through the exemption of the monthly provisional payments for businesses.

Colombia

- Taxpayers will benefit from cuts totalling US$ 1 billion under the tax reform of 2006, which introduced changes that will come into effect in 2009.
- The nominal income tax rate drops from 34% in 2008 to 33% in 2009.
- Stamp duty reduction, from 1.0% to 0.5%.
- The number of wealth tax payments is reduced from three to two in 2009.

Costa Rica

- In March 2009, a decree was signed to permit accelerated depreciation of assets during 2009, with a possible extension to 2010.

Ecuador

- Moratorium on advance income tax payment up to December 2009 for exporters in the sectors most affected by the crisis.
- Reduction in the withholding tax on interest paid abroad, to 0% for the banking sector and to 5% for private firms until December 2009 (except for capital from tax havens).
- Bank provisions above the required minimum are deductible.
- Taxes on private banks are to be temporarily reduced, and financial institutions are required to capitalise their profits in exchange for issuing of credit to the productive sectors.
- Banks' stocks of external assets are taxed to encourage national saving, with the levy on capital outflows to be raised from 0.5% to 1%.
- Tariffs will be eliminated for inputs and capital goods not produced domestically.
- A tax reform bill has been drafted.

Guatemala

- Income tax reform bill.

Honduras

- Income tax exemptions for employees earning under US$ 8,000 per year.

Mexico

- Low tariff.
- Programme to Support the Economy (3/3/2008), with the following tax measures: 3% discount on provisional payments of the corporate income tax and the single rate business tax (IETU) (February-June 2008); stimulus of 1,000 Mexican pesos for individuals with business activity who file their 2007 tax returns electronically; 5% discount on social security contributions.

Nicaragua

- Import tariffs were reduced or temporarily eliminated.

Peru

- Temporary increase in drawback rate on non-traditional exports (from 5% to 8%).
- Accelerated depreciation bill.

Uruguay

- Charging advances on taxes on income from business activities (IRAE) involving importation of consumer goods, as is already done with the VAT.
- Regulation of IRAE for transfer fees.
- Increase in domestic excise tax (IMESI) on cigarettes.
- Bonus in the form of 120% exemption from IRAE for investments made in 2009, in the framework of the law on investment and the new weighting that rewards projects that create more jobs.
- System for reimbursing tourists for taxes.

C. WHAT TAX POLICY MEASURES ARE ADVISABLE DURING THE CRISIS?

The variety of circumstances affecting the region's countries makes it impossible to recommend policies that will be broadly applicable. The design of the "package of measures" should reflect the specifics of each country, taking account of their economic and social structures, as well as institutional factors. As has been emphasised above, no single model is right for all cases.

If there is one generally applicable point, it is that the stimulus packages or measures adopted by the countries should be consistent with certain basic premises: temporariness, sustainability and institutional strengthening.

The impact of the current crisis has been rapid and strong, though its future course is not yet clear. Observations and analyses, to date, vary as to the future and end point of the crisis.

The following table presents a quick compilation of feasible measures, with the caveat that their timing and depth must be carefully scrutinised in view of each country's socioeconomic and institutional realities.

Table 16

FISCAL POLICY FOR THE CRISIS. MEASURES RELATING TO FISCAL RESOURCES

	Measure	Advantages	Disadvantages
1.	Temporary reduction in consumption tax rates	Increase in the purchasing power of families. By lowering the price of goods, such measures stimulate current consumption, vs. future consumption. Provides relatively more benefit for the lower income quintiles	Not a targeted benefit, as some other policy options provide for Benefits may not always reach the consumer. In a context of uncertainty and a crisis of confidence, such measures may not be a sufficient stimulus to increase consumption
2.	Fixed tax rebates for certain sectors, and temporary increases in either the rates or maximum amounts of income tax credits	Can be properly designed to target low-income sectors or consumer sectors subject to credit constraints. Can be implemented rapidly. Effects are temporary	May not be effective if motivations for savings predominate. May not be effective for highly indebted families, since they will prefer to increase savings rather than consumption, in anticipation of an economic contraction

Table 16 (concluded)

	Measure	Advantages	Disadvantages
3.	Temporary reduction in unemployment insurance contributions	Designed to increase employment by reducing costs for employers Can be implemented rapidly	May not be effective if the economic outlook is considered weak There is little evidence that the measure actually impacts employers' decisions While some advocate reducing social security contributions temporarily, there are risks that the reduction will not be reversed later, and will weaken social security financing
4.	More flexible rules for determining tax losses for banks and businesses	Generates incentives for merger and acquisition of companies with problems, by firms with more solid positions Permits more symmetrical treatment of profits and losses Is designed to restore confidence in the banking sector and in businesses with problems Is a means of ensuring better management of businesses with low profitability	The merged firms may be liquidated or discontinued after this process has taken place While this situation might be prevented through strict rules, the rules could prove difficult to implement
5.	Adjusting rules governing advance payments in order to take account of future income, as well as rules on carrying over losses	Facilitates better cash flow management for firms, as well as more symmetrical treatment of profits and losses	Firms may under-declare future income It is unclear whether, in the current context, these measures can actually help maintain aggregate demand
6.	Reduction in corporate taxes on income, dividends and capital gains, or application of special stimulus rules such as accelerated depreciation	No observed advantages Not advisable	Not effective, since firms' profits are low, and many firms may have tax losses Reductions in rates, and stimuli, may be difficult to reverse subsequently
7.	Amnesties, moratoriums or temporary exemptions for firms with problems	No observed advantages Not advisable	Highly distorting Highly unequal in treatment of different economic activities Affects moral behaviour of taxpayers Leads to a race for subsidies Inefficient in a system that is well-structured in its treatment of advance payments and future losses
8.	Compensatory rules vis-à-vis past tax liabilities	No observed advantages Not advisable	The possibility of compensating for current losses with profits from previous tax periods, or of receiving rebates of taxes already paid, is not only inefficient in terms of future performance, but highly distorting
9.	Changes in taxation that increase existing distortions	No observed advantages Not advisable	Increased tariffs, for example, are distorting, and may be highly inefficient
10.	Measures to strengthen financial markets and prices	No observed advantages Not advisable	Measures such as tax cuts for capital gains are distorting, and may provoke fraud as taxpayers attempt to lower their tax burden by making regular income appear to be capital gains

Source: Prepared by the authors, on the basis of A. Spilimbergo and others, *Fiscal Policy for the Crisis*, IMF Staff Position Note (SPN/08/01), Washington, D.C., International Monetary Fund (IMF), December 2008, Appendix I.

Any measures adopted should be capable of creating an immediate “shock” impact, rather than an impact that is diluted over time. By the same token, they should include a time limit. This is especially important for investment-demand-stimulus policies with no end date, which leave the economic actor free to determine when to make use of the benefit.

A second factor to consider when choosing measures is that they should not compromise fiscal solvency in the medium and long term, since, if they do, they will raise doubts not only about their effectiveness, but also about the future of the economy. This means making short- and medium-term decisions that are consistent, although often these two types of measures are not considered in tandem. Thus, it is advisable that the measures adopted be susceptible to rapid reversal once there is a clear change in the course of the crisis.

In this context, it is important to consider both the feasibility of application/implementation and the lag between time of adoption and impact on the economy.

VI. THE POLITICAL ECONOMY OF REFORM DURING THE CRISIS, AND THE CHANGES REQUIRED FOR A PARADIGM SHIFT

In the context of the international crisis, the countries’ tax measures will be subject to circumstances that are not only economic, but also political, social and institutional, which tend to make a forceful appearance in times of crisis and when tax reform measures are needed. Ultimately these circumstances play a significant role in the countries’ ability to emerge from their fiscal crises, which strongly affect economic stability, political legitimacy and the level of social welfare.

Analysis of the political economy studies of taxation in Latin America shows that the great majority agree that there is a vicious circle, which largely explains the difficulties that the region’s countries have in implementing reforms. The components of the vicious circle are (Gómez Sabaini and O’Farrell, 2009):

(i) A socioeconomic structure marked by high levels of inequality, capital concentration and informality;

(ii) Political institutions that are delegitimised, and are heavily influenced by power groups;

(iii) A fiscal system characterised by insufficient funds, regressiveness and limited capacity for reform.

In terms of Latin America’s socioeconomic structure and level of development, the strong weight of the economies’ primary sectors, the size of the informal economies, the high concentration of capital, the high levels of income inequality and low per capita income produce harmful effects on politics and institutions, as well as in the area of taxation.

With regard to effects on taxation, the following factors constitute important limitations: very small potential income tax bases, dependancy on non-tax revenues, limited capacity of tax administrations, low level of tax awareness and morality, high evasion levels, and incentives for corruption and rent seeking.

At the same time, the socioeconomic features cited above strongly affect the capacity of political institutions, making them, among other things, highly susceptible to influence. They may even be run by lobbies. These realities produce policies that benefit a small group, generally an elite, while at the same time leading to the blocking of reforms that are undesirable to those most involved with government.

As a result of this, the region's governmental institutions and policies suffer from pronounced delegitimisation, and are considerably weaker than those of the more developed countries. Delegitimisation and institutional weakness have direct implications for tax policy. According to data from the Latinobarometer, 79% of Latin Americans are not confident that tax monies will be well spent. Furthermore, 50% believe that the State is capable of solving few or no problems. These perceptions and beliefs on the part of citizens create systematic resistance to tax collections and to actions designed to change collections procedures.

Many writers point to the consequences of the institutional and political features that affect the State's capacity to effectively implement tax policy. One study on Brazil, by Marcus Melo (1998), underlines how political fragmentation can put reforms "in neutral". He analyses different features of democratic institutions that contribute to this, including the fact that "political parties have become collections of factions with minimal coherence".

Along a similar line, Lledo, Schneider and Moore (2004) note the differences in direct taxation levels between the Caribbean countries and the Latin American countries. One of the explanations offered is that the Caribbean countries inherited stronger parliamentary institutions than those present in the presidentialist regimes of South America. Thus, in polarised situations, the legislators in the former countries can negotiate, making concessions and compromises on taxes, while presidents in the latter group still govern with a legislature dominated by the opposition (in the worst cases, a fragmented opposition), with the attendant difficulties in moving a progressive tax package forward (Murga Pinillos, 2005).

These writers agree, in a sense, with one of the most influential works on this subject (Steinmo, 1993), which centres on the relationships among institutions, and the ability of different actors to negotiate. According to Steinmo, the differences in tax systems may be found in the design of democratic institutions, since these depend on the ability of actors interested in the results of tax policy to negotiate, as well as on the information available to them and the incentives they have for seeking particular policies.

Finally, we note that recent trends in the literature underline the importance of the quality of institutions in the processes of creating and implementing public policy. Stine and Tommasi (2006) conclude that effective political processes and public policies are feasible when political parties are institutionalised and programme based, when legislatures have substantial capacity to formulate policy, when an independent judiciary is in place and bureaucracies are solid. They believe, at the same time, that in institutionalised party systems, when political organisations are programme based (in the sense that they compete and gain support based on differences in their policies and achievements), it is more probable that they will promote greater coherency in policy over time, and that there will be greater potential for establishing lasting agreements.

In this sense, the institutional deficiencies common to the great majority of countries in Latin America are highly relevant to understanding conflicts regarding tax systems, as well as the constraints on implementing reforms.

The factors to which tax reform is subject, cited so far, create very limited room for possible change in tax policy (Prats and others, 2007), and are directly associated with two of the most notable taxation problems in Latin America: insufficient revenue and regressiveness. These two factors, and a very limited ability to change them, mean that tax policy not only cannot reverse socioeconomic inequalities and combat poverty, but also that in many cases it increases them.

These factors must be borne in mind in the present crisis, since they will to a great extent determine the ability of each country to respond to the conflicts that arise —a situation that calls for pro-active policies.

Thus, the conditions created by the crisis not only require reforms, but may also help to make them possible. In this respect, Mahon (1997) lists four determinants of tax reform in Latin American countries, along with empirical findings on their relevance: economic crisis, electoral cycles, type of regime and international pressure.

Mahon observes that basic changes in tax structure and administration are generally possible in times of *crisis*. Citing Bird (1992), the author points to evidence that, during crises, it becomes possible to overcome the coalitions of political opposition and administrative inertia that ordinarily block important reforms. One example of this is the economic emergency laws passed in Argentina in 2002. In that situation, it became possible to approve tax measures that had been rejected by the legislature only a few years earlier. It is clear that this proposition is particularly important in attempting to effect tax changes that have serious redistributive implications, and that would be rejected out of hand in non-crisis circumstances.

Again, in the case of Argentina, various reforms contained in the 1999 tax laws, particularly regarding taxes on persons, found support during the crisis. Moreover, in the recent economic expansion, characterised by unprecedented growth of fiscal revenues, reforms were quite limited, except in the case of Mexico. In the other countries, it appears that as revenue goals are met or surpassed, incentives to change tax systems have fallen sharply.

Indeed, discussion of the inequality of the systems becomes limited to academic circles, and does not translate into legislative bills to address these problems, though they are widely known (Cetrángolo and Gómez Sabaini, 2007; Gómez Sabaini and Martner, 2008).

The introduction of the income tax in the region between 1920 and 1930 can be seen in the same way. In practically all of the countries, this occurred in a context of scarce resources due to declining world trade, the economic crisis following World War I and the Great Depression.

Another factor facilitating the implementation of reforms, according to Mahon, is international pressure. Referring in particular to international influence on reforms in Latin America during the 1980s and 1990s, the author asserts that *international pressure* is often decisive in the implementation of reforms. This pressure may appear as a result of economic programmes subject to economic policy conditionalities, or based on pressure from external trends. In the area of taxation, as is perhaps true in a limited number of other economic areas, there is ample room for an “imitate your neighbour” effect, which explains why the region’s tax systems have been strongly influenced by different trends, with implementation of the VAT being one of the most important and widespread examples (Gómez Sabaini and Martner, 2008).

In line with the arguments set forth by Mahon (1997), Di John (2006) argues that *threats*, both internal and external, generate *windows of opportunity* for tax reform. As indicated above, many historians hold that these threats —in the form of wars or invasions— were determining factors in the creation of the Western nation states, opening the way for citizens to be less resistant to increased taxes.

Di John (2006) argues that threats today could take forms other than imminent war, including action by domestic social movements, fiscal crises or global economic conditions. It is clear, then, that, as in the case of other determinants of tax policy, contextual conditions can serve to legitimise changes in both the level and structure of public revenues by creating increased societal consensus on the need for them.

Finally, we must not ignore ideological changes, and what many writers see as a paradigm shift in the structure of the economy, the role of the State, and the State's relation to society. This shift involves a major change in the countries' fiscal policies, moving toward higher levels of spending, and hence more tax revenues. The current situation may aid many of the region's countries in reaching greater consensus for measures that reduce the system's regressiveness and increase the tax burden, thus strengthening the State's ability to act, particularly with regard to combating poverty and reducing economic inequality.

VII. FINAL REMARKS

A number of thoughts emerge from this analysis, concerning the impact that the crisis may have on the countries of the region. These are of interest when considering concrete tax policy measures that may be advisable for the various countries. One of the lessons for the region, emerging from the analysis, is the importance of countering the volatility of fiscal revenues and addressing the effect this has on public spending. To accomplish this, it is essential that the solvency of public accounts be based on revenue sources that are less vulnerable to business cycles, since the sustainability of public finances over time is a necessary condition in creating the fiscal context in which countercyclical fiscal policy can be brought to bear.[15] Thus, it is important to strengthen the tax systems, an achievement that involves efforts in both the policy area and in tax administration.

First, it is evident that not all of the countries will be affected by the international crisis to the same extent or via the same channels. The asymmetrical nature of the crisis suggests that a "one size fits all" model will be of little use, with specific actions having to be tailored to each individual situation.

Second, it is clear that, although a price will have to be paid for adopting tax measures that inevitably fall short of garnering the normal political consensus, this price will be less than the cost of inaction or hesitation. The external, international nature of the crisis means that the determinants of the countries' tax revenues are now exogenous variables that cannot be changed by any individual country. Therefore, the greater the adaptability or flexibility of the policy in the face of change, the less negative the effects of such change are likely to be.

Third, although the "eye" of the storm may be narrow and quickly exhausted, its secondary and collateral effects may be long term. Therefore, measures to address the crisis should not be postponed, and should, at the same time, be consistent with what is expected in the medium and long term. Distorting

---

[15] For more detail on the relation between macroeconomic fluctuations and fiscal policy in Latin America, see Fanelli and Jiménez (2009).

measures that create rapid short-term gains but have negative effects on the pace of future growth should be avoided.

Fourth, a positive element is that the tax burden in the region's countries has grown over the last decade, nearing maximum potential capacity. Moreover, in most cases the tax structure has also undergone positive changes, bringing it more closely in line with international norms. The measures adopted must not reverse the achievements made to date, and should be susceptible to reversal once the effects of the crisis are attenuated over time. Measures with effects that cannot be reversed, or that introduce distortions in the tax structure, should therefore be avoided.

Fifth, in order to contribute to an initial assessment of the crisis impact on each country's tax circumstances, an index reflecting exposure to the crisis has been developed. This takes account of a series of variables in order to assess the impact of the crisis. It is evident that the tax revenues of countries with a high percentage of non-tax revenues or a high percentage of revenues from taxes on natural resources activities, with low tax burdens and economies highly open to trade, and with foreign trade that is highly dependent on the United States, have a higher exposure index than do the revenues of systems with high tax burdens, those where income tax plays a greater role in revenue, and those where the VAT has a high productivity ratio.

Sixth, according to ECLAC, a review of measures adopted as of March of this year shows that 13 countries have announced measures to compensate for the effects of the crisis (referring, here, only to the tax revenue consequences of the crisis), and that the measures adopted have conformed quite closely with the guidelines set forth in this paper.

The final factor is the countries' institutional and political capacity to implement their policies. This points directly to the political economy of taxation, a complex field where analysis highlights a number of features and arguments to consider, none of which is conclusive. If any assertion can confidently be made here, it is that crises also represent opportunities for change and, as Di John states, may open a "window of opportunity" for reforms to Latin American tax systems that are needed not only to deal with the crisis, but also for the purpose of economic and social development.

Bibliography

Álvarez Estrada, Daniel (2008), "Tributación directa en América Latina: equidad y desafíos. Estudio del caso México", document presented at the seminar Taxation, equity and evasion in Latin America: challenges and trends, Economic Commission for Latin America and the Caribbean (ECLAC), Santiago, Chile, 24-25 November.

Arias, Luis Alberto (2008), "La tributación directa en América Latina: equidad y desafíos. El caso de Perú", document presented at the seminar Taxation, equity and evasion in Latin America: challenges and trends, Economic Commission for Latin America and the Caribbean (ECLAC), Santiago, Chile, 24-25 November.

Bird, Richard (1992), "Tax reform in Latin America: a review of some recent experiences", *Latin American Research Review*, University of Toronto.

Cabrera, Maynor (2008), "La tributación directa en América Latina, equidad y desafíos: el caso de Guatemala", document presented at the seminar Taxation, equity and evasion in Latin America: challenges and trends, Economic Commission for Latin America and the Caribbean (ECLAC), Santiago, Chile, 24-25 November.

Cabrera, Maynor and Vivian Guzmán (2008), "La tributación directa en América Latina, equidad y desafíos: el caso de El Salvador", document presented at the seminar Taxation, equity and evasion in Latin America: challenges and trends, Economic Commission for Latin America and the Caribbean (ECLAC), Santiago, Chile, 24-25 November.

Cetrángolo, Oscar and Juan Carlos Gómez Sabaini (2008), "La imposición en Argentina: un análisis de la imposición a la renta, a los patrimonios y otros tributos considerados directos", document presented at the seminar Taxation, equity and evasion in Latin America: challenges and trends, Economic Commission for Latin America and the Caribbean (ECLAC), Santiago, Chile, 24-25 November.

______(2007), "La tributación directa en América Latina y los desafíos de la imposición sobre la renta", *Macroeconomía del desarrollo* series, No. 60 (LC/L.2838-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC). United Nations publication, Sales No. S.07.II.G.159.

Cetrángolo, Oscar and Juan Pablo Jiménez (2003), "Política fiscal en Argentina durante el régimen de convertibilidad", *Gestión pública* series, No. 35 (LC/L.1900-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC). United Nations publication, Sales No. S.03.II.G.60.

Di John, J. (2006), "The political economy of taxation and tax reform in developing countries", *Research Paper*, No. 2006/74, United Nations University/World Institute for Development Economics Research (WIDER).

ECLAC (Economic Commission for Latin America and the Caribbean) (2009), *The reactions of the Governments of the Americas to the international crisis: an overview of policy measures up to 31 March 2009* (LC/L.3025), Santiago, Chile, 31 March.

______(2008a), *Preliminary Overview of the Economies of Latin America and the Caribbean, 2008* (LC/G.2401-P), Santiago, Chile, December. United Nations publication, Sales No. E.08.II.G.36.

______(2008b), *Economic Survey of Latin America and the Caribbean, 2007-2008* (LC/G.2386-P), Santiago de Chile. United Nations publication, Sales No. E.08.II.G.2.

______(2006), *Social Panorama of Latin America, 2006* (LC/G.2326-P), Santiago, Chile. United Nations publication, Sales No. E.06.II.G.133.

______(2003), "Una evaluación de los procesos de descentralización fiscal", *Seminarios y conferencias* series, No. 32 (LC/L.1991-P), Santiago, Chile. United Nations publication, Sales No. S.03.II.G.153.

Fanelli, José María and Juan Pablo Jiménez (2009), "Crisis, volatilidad, ciclo y política fiscal en América Latina", Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), unpublished.

Gómez Sabaini, Juan Carlos (2006), "Evolución y situación tributaria actual en América Latina: una serie de temas para la discusión", *Tributación en América Latina. En busca de una nueva agenda de reformas*, ECLAC books series, No. 93 (LC/G.2324-P), O. Cetrángolo and J.C. Gómez Sabaini (comps.), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC). United Nations publication, Sales No. S.07.II.G.7.

Gómez Sabaini, J.C. and R. Martner (2008), "America Latina: panorama global de su sistema tributario y principales temas de política", Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), unpublished.

Gómez Sabaini, J.C. and Juan O'Farrell (2009), "La economía política de la política tributaria en América Latina", document presented at the twenty-first Regional Seminar on Fiscal Policy, Economic Commission for Latin America and the Caribbean (ECLAC), Santiago, Chile, 26-29 January.

Jiménez, Juan Pablo and Andrea Podestá (2009), "Inversión, incentivos fiscales y gastos tributarios en América Latina", *Macroeconomía del desarrollo* series, No. 77 (LC/L.3004-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC). United Nations publication, Sales No. S.09.II.G.1.

______(2008), "Tributación y equidad: desafíos para América Latina", Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), unpublished.

Jiménez, Juan Pablo and Varinia Tromben (2006), "Fiscal policy and the commodities boom: the impact of higher prices for non-renewables in Latin America and the Caribbean", *CEPAL Review*, No. 90 (LC/G.2323-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), December.

Jorrat, Michel (2008), "La tributación directa en Chile: equidad y desafíos", document presented at the seminar Taxation, equity and evasion in Latin America: challenges and trends, Economic Commission for Latin America and the Caribbean (ECLAC), Santiago, Chile, 24-25 November.

Levi, M. (1988), *Of Rule and Revenue*, Berkeley, Los Angeles, University of California Press.

Levy-Yeyati, E. and F. Sturzenegger (2007), "The effect of monetary and exchange rate policies on development", *Handbook of Development Economics*, Elsevier.

Lledo, Victor, Aaron Schneider and Mick Moore (2004), *Social Contracts, Fiscal Pacts and Tax Reform in Latin America*, Washington, D.C., Inter-American Development Bank (IDB), February.

Lopez-Monti, Rafael (2009), "Real volatility and cyclical fiscal policy in Latin America and developed countries", Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC), unpublished.

Lucioni, Luis (2009), "La provisión de infraestructura en América Latina: tendencias, inversiones y financiamiento", *Macroeconomía del desarrollo* series, No. 72 (LC/L.2981-P), Santiago, Chile, Economic Commission for Latin America and the Caribbean (ECLAC). United Nations publication, Sales No. S.08.II.G.101.

Mahon, J. (1997), "Tax reform and its determinants in Latin America, 1977-94: implications for theories of state development", document presented at the annual meeting of Latin American Studies Association (LASA), Guadalajara, 17-19 April.

Melo, M. (1998), "When institutions matter: the politics of administrative, social security, and tax reforms in Brazil", document presented at the annual meeting of Latin American Studies Association (LASA), Chicago, Illinois, 24-26 September.

Murga Pinillos, Y. (2005), "Modernización de los sistemas tributarios de América del Sur durante los años noventa", document presented at the international seminar Fiscal modernisation in the Iberian world from the eighteenth to the twentieth century, Lima, October.

Prats, J., I. Macías-Aymar and J.O. Prats (2007), *Gobernanza y desigualdad. Obstáculos de la reforma tributaria en América Latina: el caso de the Plurinational State of Bolivia, Perú y Ecuador*, CeALCI/ Fundación Carolina.

Roca, Jerónimo (2008), "Tributación directa en Ecuador: evasión, equidad y desafíos de diseño", document presented at the seminar Taxation, equity and evasion in Latin America: challenges and trends, Economic Commission for Latin America and the Caribbean (ECLAC), Santiago, Chile, 24-25 November.

Spilimbergo, Antonio and others (eds.), (2008) "Fiscal policy for the Crisis", *IMF Staff Position Note* (SPN/08/01), Washington, D.C., International Monetary Fund (IMF), 29 December.

Stein, E. and M. Tomassi (2006), "La política de las políticas públicas", *Revista política y gobierno*, vol. 13, No. 2, Mexico City.

Steinmo, S. (1993), *Taxation and Democracy: Swedish, British and American Approaches to Financing the Modern State*, New Haven, Yale University Press.

Ter Minassian, T. (2009), "Effects of the global financial crisis on LAC's public finances", document presented at the twenty-first Regional Seminar on Fiscal Policy, Economic Commission for Latin America and the Caribbean (ECLAC), Santiago, Chile, 26- 29 January.